

Please cite the source as:

Jiménez, M. S. (2009). Trends and findings in trajectory studies: A methodological approach to classify labor development. *Revista Electrónica de Investigación Educativa*, 11 (1). Retrieved month day, year, from: http://redie.uabc.mx/vol11no1/contents-ijmenez.html

Revista Electrónica de Investigación Educativa

Vol. 11, No. 1, 2009

Trends and findings in Trajectory Studies: a Methodological Approach to Classify Labor Development

Tendencias y hallazgos en los estudios de trayectoria: una opción metodológica para clasificar el desarrollo laboral

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(Received: January 31, 2007; accepted for publishing: March 6, 2008)

Abstract

Trajectory studies are a methodological option that helps to completely analyze labor paths forged by individuals in the labor market. However, when initiating a research in this topic there are several different scopes, discipline approaches, objects and purposes of research, which hinder its comprehension. This article presents the main trends established to guide this type of research and some of the theoretical and methodological elements found in its structure.

Key words: Individual development, professional development, labor market.

Resumen

Los estudios sobre trayectoria presentan una opción metodológica que permite profundizar en los recorridos laborales que desarrollan los individuos en el mercado de trabajo. Sin embargo, al iniciar un estudio de este tipo se observa que existe una gran diversidad de enfoques, disciplinas de abordaje, objetos y finalidades de estudio que dificultan su comprensión. En este artículo se presentan las principales tendencias que orientan este tipo de estudios y algunos de los elementos teóricos y metodológicos, encontrados en su construcción.

Palabras clave: Desarrollo individual, desarrollo profesional.

Introduction

Trajectory research can classify individuals' pathways in the labor market. Trajectories can be educational, labor, labor- educational, occupational, or professional according to the purpose of the study. Each trajectory consists of different elements; however, they converge in their construction and components; for example, the moments of transition. The analysis of mobility, observed through the individual's labor and professional development, is characteristic of this type of research. The concepts that structure this article are: *trajectory*, moments of transition, classification, factors that influence trajectories as well as their dimensions and effects.

I. Concept of Trajectory

In an educational and labor market environment, the term trajectory refers to the different stages an individual experiences after completing an education in a specific field or after starting career or occupation related to the professional, labor, economic, and social factors. Buontempo (2000) states that individuals build a trajectory through time and social space with a succession of social positions that involve a reconversion/reproduction of their capital assets.

Mainly, labor trajectories illustrate how individuals perform a specific activity, the workplace location, the role of institutions, the institutional networks, the type of work, and the destination of incomes. Trajectories also show how individuals rely on social and cultural capitals, as well as in institutions that help them to enter the labor market.

Vargas (2000) describes trajectories as the "succession of development activities that includes formal or informal education, training and working experience that lead an individual to higher positions in hierarchy" (p.3). This concept complements what Boado (1996) states on trajectories which according to him can help to know the cultural knowledge, abilities and skills acquired and developed by the graduate or employee during the development of his or her professional life. Vargas (2000) includes the notion of *degree of freedom* to explain the path sequence that careers follow. A career constitutes one's professional history,

which is related to the work force and the labor market where the graduate career develops.

Trajectories can be defined as the path of the individual's job positions and professional activities derived from the combination of education as well as micro and macro social factors, such as family background, personal relationships, gender, social moment of graduation, the first job, and the labor market conditions, which describe the individual's social, economic, and labor mobility.

Trajectory studies analyze individuals' mobility influenced by social, economic, and labor circumstances. They converge at one point, since several similarities have been found regarding trajectories. Trajectory studies are not properly considered a field of research with defined criteria, since they rely on several factors, such as disciplinary fields, research objectives, and individuals.

Theoretically, trajectory research work is approached from different perspectives that allow different interpretations on the diverse situations an individual encounters in the labor market. These perspectives can be psychological, sociological, economic, educational, or a multidisciplinary.

These studies can focus on different approaches: entry into the labor market (Valle and Barrón, 2001; Pérez Islas and Arteaga, 2001; Buontempo, 2000), individuals' opinions and perspectives (Magendzo and González, 1998), period of graduation (Mayrofher *et al.*, 2001), education and working experience (Ruiz, 2000), continuing education (CINTERFOR-OIT, 2001), labor mobility (Boado, 1996; Pacheco and Parker, 2001; Jiménez, 2005), gender (Hualde, 2001) or stages of professional development (Vargas, 2000), among others.

Individuals involved in this type of research include graduates from a certain degree program (Magendzo and González, 1998; Ruiz, 2000; Valle and Barrón, 2001; Jiménez, 2005), from one or several higher education institutions (Muñoz, 1994; Valenti, Varela, González and Zurita, 1997), professionals (Vargas, 2000; Cruz, Sanz and Aja, 2006), employees who work in a company (De la O, 2001), economically active population in a specific location (Boado, 1996; Navarro, 1998), young men looking for a job (Pérez Islas y Arteaga, 2001; Pérez Islas, 2001), or women(Hualde, 2001, April-June; De la O, 2000; Elejabeitea and López Sáez, 2003).

II. Methodological characteristics

To build a trajectory description, individuals under study must have been in their field of work for certain time in order to build up the path of individuals' professional development and activity, as well as to analyze the professional, social, and academic aspects that favored or made difficult such paths.

Valenti, et al. (1997) affirm that labor trajectories are more stable during the first five years or less after the individual graduated. On the other hand, Ruiz (2000),

who interviewed individuals with five years, or more, after graduation and up to 15 years of working experience, concluded that this time period allowed the description of socio-educational and socio-labor trajectories. Vargas (2000) builds up trajectories by using three indicators: the beginning of the career, the midcareer and late stage of a career, all of these stages define professional development.

The analysis and description of trajectories needs of the retrospective method to build individuals' working schedules, due to the fact that a great part of the phenomenon that requires to be studied has already happened by the time the research is conducted. *Ex post facto* research studies might be considered, as Fresan (2004) has stated, when it is impossible to use the experimental method and there is no control over the variables; for this reason, a causal-comparative and correlated model might also be considered.

Fresan (2004) considers that trajectory studies have three clearly defined limitations: a) the inability to control directly the independent variables; b) the impossibility to assign randomly individuals to the control and experimental group; and c) the risk of erroneous interpretations due to the lack of control.

On the contrary, Jiménez (2005) says that this type of research grants the following advantages: a) it is a source of information about an event; b) it allows the foundation of causal-comparative relationships among variables; and c) it offers an overview close to the reality of the studied phenomenon.

Basically, the tools that are used in a trajectory research are the questionnaire (Valenti *et al.*, 1997; Magendzo and González, 1998; Muñoz Izquierdo, 1994; Jiménez, 2005) and the interview guide (Ruiz, 2000; Vargas, 2000). The data obtained is mainly quantitative in the questionnaire and qualitative in the interview guide.

III. Trajectory Research

The different denominations given to trajectory research have made it difficult to identify its characteristics and dimensions. In the name designation, several factors intervene and they are mainly related to the educational and professional stages; consequently, it is common to find educational trajectories, labor-educational trajectories, labor trajectories, occupational trajectories, professional or career trajectories and academic trajectories, among others.

3.1 Labor-Educational Trajectories

Educational and labor trajectories interrelate education to labor pathways. Educational trajectories may be defined as the formal and informal education received by an individual and which have an effect in the individual's professional development. Usually, educational trajectories are analyzed simultaneously with labor and occupational trajectories. In the first stage of the research, the

interviewed individuals are students, and by the second stage they are interviewed as graduates (Magendzo and González, 1998); or the research may consist only of graduates, but they are inquired about their academic pathways (Jiménez, 2005).

This type of study allows the assessment and analysis of the situations that individuals face as students and later on as graduates. A perfect example is the research of Magendzo and González (1998) on graduates from secondary education in three popular public sectors in Santiago de Chile. Its purpose was to examine the reasons graduates gave to explain their educational and labor trajectories, as well as their goal achievement. These authors associated the control that graduates thought they had over these variables and the degree of continuance they indicated, with the purpose of determining the existence of a cognitive cultural pattern that would explain the success or failure of these graduates. Magendzo and González adopted the attribution theory from a psychological perspective.

3.2 Labor Trajectories

The purpose of labor trajectories is to quantify the effects of education on graduates' performance and to study the labor pathways they undertook over a specific time frame. Valenti, et al. (1997) and Muñoz Izquierdo (1994) studied the labor trajectories of graduates from the Metropolitan Autonomous University (UAM, for its acronym in Spanish *Universidad Autónoma Metropolitana*,), case one, and graduates from the Ibero-American University (*Universidad Iberoamericana*), case two, both universities located in Mexico City, and they analyzed the impact of the different professional programs those universities offered. The studies were part of a graduates' follow up project, in which the trajectory was considered an analysis dimension.

In this type of research, the impact analysis of education can be centered in two moments in time: the one obtained in the educational system at the undergraduate or graduate program, and the one obtained through continuous education in the professional field, such as continuing education refresher courses.

The studies conducted by Valle and Barrón (2001), and Ruiz (2000) are examples of the first case. Valle and Barrón studied the impact of undergraduate education in the graduates'labor trajectories from two university degree programs with divergent characteristics: Physics and Business Administration of the National Autonomous University of Mexico (UNAM, for its acronym in Spanish Universidad Nacional Autónoma de México). On the other hand, Ruiz researched on the labor market and the professional activity of graduates from undergraduate programs in engineering related to the industrial field, and she analyzed the existent relationship between education and the needs of the manufacturing sector in the metropolitan area of the Federal District in Mexico City, as well as, their work performance. In order to do so, Ruiz used conceptual, statistical, historical, institutional, professional and technical-industrial organization analysis maps.

Jiménez (2005) researched impact of graduate studies as a factor that determined labor trajectory. She compared labor conditions, professional activities and occupational mobility on graduates with or without this academic level.

Regarding continuing education in the professional field, there is a research conducted by the Union Institute for Research (ISE, for its acronym in Spanish Instituto Sindical de Estudios) denominated "Formación continua y trayectorias laborales" and it was sponsored by the Foundation For Continuing Education (FORCEM, for its acronym in Spanish Fundación para la Formación Continua) and the European Social Fund. This research particularly analysed the impact of continuing education and changes in employment (CINTERFOR-OIT, 2001).

An essential part of this type of trajectory research is to identify professional development of graduates from a specific undergraduate program, from one or several educational institutions, in order to correlate the effects of education on the individual's career development. In most cases, the individuals under study are graduates who work within their professional field.

3.3 Occupational Trajectories

Occupational trajectories elucidate the activities that graduates perform in the labor market and they are analyzed to explain graduates'occupational mobility. Boado (1996) refered to the job positions that people from the various sectors of the population occupied in Uruguay. Likewise, Herranz (1990) carried out a research on the insertion of technical specialists in three local labor markets in some provinces of Spain, where the author described the occupational trajectories and the labor market conditions for those who finished their studies between 1981 and 1984.

When referring to the concept of *occupational trajectories*, it has been observed that the importance of the study lies in identifying the activities the graduate performs, which may belong to a specific field or several ones, and which may be or not related to the graduates' education. Also, individuals' occupational behavior may be analyzed without considering the educational institution they graduated from.

An important part of these studies includes the analysis of individuals' mobility in social, economic, academic, and labor contexts. Jiménez (2005) described the trajectories of agricultural biologists from the Autonomous University of Tlaxcala (*Universidad Autónoma de Tlaxcala*) through a study of the occupational mobility based on the graduates' internal and external movements according to six types of trajectories: continuously ascendant, sporadically ascendant, ascendant with unemployment, continuously stagnant, sporadically stagnant, and stagnant with unemployment.

Each of them was conditioned by specific working and professional conditions, which are influenced by numerous factors such as labor market entrance, working environment, gender, date of graduation, and graduate studies.

3.4 Professional or Career Trajectories

Professional trajectories examine the professional development of one group or groups of professionals who perform similar activities related to their education at higher education institutions. The context of the study can be an institution, company, or labor market.

Vargas (2000) analyzed the professional trajectories of engineers in a company of electronic devices in Tijuana, Baja California. She considered the individuals' internal and external mobility based on factors such as: career field development, hierarchical positions, and family constraints or personal limitations. On the other hand, Ruiz (2000) conducted a similar study on engineers in the manufacturing sector who graduated from different educational institutions and worked at different companies, and she included the individuals' opinion on their professional development, besides examining their trajectories.

3.5 Transition Moments

The trajectories that individuals undertake in the labor market are determined by different moments which Boado (1996) denominates transitions. Boado states that in order to analyze the exclusion or permeability effects of the social-occupational structure, it is necessary to build the trajectory or path that graduates followed, according to three transitions: the first stable job, the job in the 10th year, and the current job. Valle and Barrón (2001) also consider another aspect that is in involved in an earlier stage: choosing a career.

Buontempo (2000) has a similar opinion. She suggests two important points in time for labor trajectories: the beginning of a labor trajectory (the first job) and the continuance within the labor market. She indicates that a labor trajectory may have stages of stability or instability, which help to determine whether the individual has progressed or stagnated and whether continuity or discontinuity exists in labor trajectories.

The choice of a degree program and the first job determine the beginning of a trajectory. The subsequent labor paths and continuance in a job position together with the individual's personal decisions and external conditions are factors that produce different occupational and labor trajectories of lower or grater professional success (Jiménez, 2005).

3.6 Influence Factors

From a micro social perspective, individuals' behaviour may be explained through their choices and movements analyzed by context or units of small magnitude, such as family and friends. Within the macro-social approach, social structure determines or conditions individuals, and guides their social, economic and labor behavior.

Thus, in the individual's labor, occupational, or professional trajectories, there are a number of factors which condition or influence the different paths; for instance, education and continuous education, gender, the period of graduation, cultural capital, relational capital, and social background.

3.6.1 Education and Continuous Education

Education is one of the factors that has drawn the most attention within studies on trajectories or graduates' follow up. The analysis of education's impact on graduates' labor market insertion and career development is one way to assess the curricula as far as the academic contents are concerned.

Graduates consider their education is the grounding that makes them capable of performing certain work functions; then, they gain the working experience that will translate into cognitive and social skills. Influence of education varies according to the type of educational institution. Ruiz (2000) states that public universities, such as UNAM and the National Polytechnic Institute (IPN, for is acronym in Spanish Instituto Politécnico Nacional) are institutions that focus in technical features, while private schools such as the Ibero-American University as well as the Monterrey Institute of Technology and Higher Education (ITESM, for its acronym in Spanish Instituto Tecnológico y de Estudios Superiores Monterrey) focus in managerial and leadership features which together with the inherent knowledge of the academic field help graduates to adjust successfully to different production contexts.

When reviewing trajectory studies, many contrasting details can be found especially regarding education impact in labor insertion. Correa (1990) found that more than a half of the economists did not work in their field, so they could be considered sub- employees. Also, Herranz (1993) states that in most times labor is little related to the academic degree obtained. On the other hand, Valenti (1997) found that a high percentage of *UAM* graduates worked and continued studying, and that a great number of them built their own source of work. Magendzo and González (1998) reported that young men and women showed a higher occupational rate three years after graduation, which gave meaning to the acquired education. Orozco (2000) conducted a study on agricultural biologists and found that 70% of the graduates work within the biology field.

Results show that it is not a general trend and that it depends on the educational institution where the individual graduated from, the graduate's degree program, the

context in which graduates develop, and the occupation diversity in their professional field.

When Jiménez (2005) analyzed the impact of graduate studies in trajectories of agricultural biologists, she found that graduates who did graduate studies and took continuing education courses developed higher quality work activities. The majority of these graduates had base contracts with benefits, as well as the possibility to get full time jobs and higher positions.

In a research conducted by the Inter -American Center for Knowledge development, Professional Education and the International Labor Organization (CINTERFOR-OIT, for its acronym in Spanish Centro Interamericano para el Desarrollo del Conocimiento en la Formación Profesional y la Organización Internacional de Trabajo) (2001), the general assessment of professional training after completing one's degree program was higher (90%) than the studies obtained during one's education, according to graduates. There is a difference between the general opinion on the importance of this type of training and its influence on individuals' career. Individuals, who completed continuing education courses, related or not to their professional field, considered that their working experience was their main qualification. Those individuals that completed specialized continuing education courses also considered it, but in a greater scale.

These statements show the importance that continuing education has for graduates' labor and professional trajectories. By means of continuing education graduates get promoted to higher positions, since it favors the development of competencies that are demanded by the labor market in a new globalized context. In this context, the completion of graduate studies is an important factor to be qualified for the labor market.

3.6.2 Gender

Correa (1990) considered the variable of gender in a study that showed that women concentrated more on being recognized as fitting for the job and demanded lower salaries than men did. However, women spent more time studying, although the causes are unknown, and they had the same expectations as men did, though women were more likely to fulfill those (Herranz, 1990). The percentage of women who completed educational activities (42%) was higher when compared to men (37%). The opposite happened in the case of FC1 (Continuing Education Case 1), since 16% was registered for men and 13% for women (CINTERFOR-OIT, 2001).

Moreover, women did not leave the work force easily (Herranz, 1990; Magendzo and González, 1988); nevertheless, as the work position responsibility increased, the presence of women in those positions decreased (Correa, 1990). This behavior is explained by the *theory of segmentation*. According to Magendzo and González (1988) this factor is highly related to family and school, as well as ideology, and labor market social representations. These statements demonstrate

that women must work harder to get a successful trajectory when compared with men. This idea is not always recognized in the social, labor, and economic contexts because market is segmented and stratified. Women have always been characterized by intergenerational instability.

Women's multifaceted personality shows that they consider professional activity as part of their own identity that coexists interrelates and interacts with other spheres (home chores, children's rearing, among others). Pluriactivity has been studied as an evidence of parallel and consecutive jobs, as well as a self-regulation factor, and a distinctive trait in women's culture.

In this regard, Jiménez (2005) found that men had greater external mobility and higher unemployment indices, but still held higher work positions. Women, on the other hand, were more stable at their workplace but their work activities and conditions were lower ranking.

3.6.3 Period of graduation

Labor context characteristics in the last decades have changed dramatically due to several facts, such as globalization, economic changes, new forms of employment, working and institutional flexibility, as well as technological innovations which influence the labor market conditions for professionals. Mayrhofer *et al.* (2002) consider the different periods of graduation as factors that influence on professional careers, due to the change that the labor context has suffered. There is a great number of recent graduates who are completely influenced by these changes, which are generated by economic and technological developments, while individuals who have more than 10 years after graduation, are less affected, especially in the mid or final stage of their career.

A research conducted by Jiménez (2005) confirmed these statements. By analyzing the effects of graduation periods, Jimenez found that recent graduates, who had been for five to nine years in the labor market, had lower quality labor conditions due to the international trends of work flexibility. Examples of work instability and the lower social safety standards that prevail nowadays include part-time shifts, full time shifts with low salaries, positions of trust, temporary contracts, professional fees, as wells as minimum benefits granted or employment without benefits. Moreover, professional activities performed by graduates showed a low level of complexity, responsibility and diversity, which corresponded to the beginning of their career, while graduates who continued longer in the labor market enjoyed greater benefits and salaries, work stability and they performed activities of a higher level of specialization.

3.6.4 Cultural Capital

According to Boado (1996), the concept of *cultural capital* describes the group of cultural competencies an individual acquires, which includes knowledge and proficiency of certain codes. Employed individuals hold a higher *cultural capital*

than those who are unemployed; this is directly related to the level of formal education. Individuals who use market mechanisms to enter the labor market are a protected segment and they hold an advantage over the others.

Individuals with higher cultural capital have more possibilities of ascending to higher level positions. Jiménez (1996) found that the number of individuals with better work conditions is higher when they are culturally competent; they become competent by doing courses such as graduate studies, taking continuing education courses, or by accumulating professional experience. Also, he found that they have a greater ascendant mobility.

Herranz (1990) emphasizes that trajectories cannot be separated from *cultural* factors; in other words, from social codes and modes that become legitimate according to the principles that prevail in a social class. This might be confirmed by what Muñoz Izquierdo (1994) established, when he said that universities were not determiners for counteracting the family background influence on graduates education, attitudes and principles. Graduates are exposed to processes of socialization, which reinforce their attitudes and principles acquired in the family environment.

3.6.5 Relational Capital

Boado (1996) considers the particular importance of the individual's *relational capital* as an external factor of influence on labor trajectories. Relational capital refers to interpersonal connections or relationships that increase or decrease difficulties when entering into the labor market or accessing other people. The concept of *relational capital* is observed within researches conducted by Muñoz (1994), Correa (1990), Orozco (2000), and Jiménez (2005), where they considered the main mechanisms that graduates used to enter into the labor market. These authors found that relationships with friends, family and acquaintances established a channel and that they were a fundamental support when finding a job.

Relational mechanisms are of considerable importance and they are very common in labor trajectories. On the other hand, market mechanisms prevail as the mechanisms used for better resume and professional experience descriptions, and they are considered to define better work positions and professional or technical education; however, they are not effective for those individuals with a lower education level and who are trying to find a job.

Other research works find social networks are connections that help individuals with labor insertion and professional development. Pérez Islas and Arteaga (2001) consider that these are groups with affiliation and methods of social aggregation which function as cultural or symbolic parameters that depended on socioeconomic events.

Ruiz (2000) agrees with the aforementioned by stating that trajectories involve a series of variables; for example, the impact of educational institutions, family

background, social processes, subjunctive professional representations, and professional success. These variables articulate the functions, principles, and relationships experienced by graduates within the labor market, which creates opportunities to ascend to higher positions and have social mobility. Correa (1990) found that factors such as working experience, ways to get a work position and the condition of being a male are of decisive influence on the labor trajectory of economists.

3.6.6. Family and Social Background

This factor determines the beginning and direction of graduates' labor trajectory, and it works in two ways: it conditions the beginning of an early labor trajectory for the individual with a low socioeconomic status, or in case of having a better social status; it allows the individual to find a satisfactory work position in less time, which originates a function of segmentation and stratification.

The majority of young people who enter the work force at an early age work in fields that are not related to their professional education, specifically those at a lower socioeconomic status. Due to this fact, the mobility they experience only multiplies labor rotation; in other words, individuals change positions without changing position level.

Young people with a higher socioeconomic status find jobs with better work conditions thanks to family or social friend connections, or to the counseling given at private institutions such as the Technological Institute of Monterrey (*Instituto Tecnológico de Monterrey*) (Ruiz, 2000).

IV. Impact Dimensions

Through the review of several trajectory studies, variables have been identified to analyze the different individuals' paths within the labor market. The synthesis of these variables allowed the categorization of impact dimension, which describes trajectories. For example, labor insertion, labor conditions, professional practices, stages of professional development, and mobility observed in market segmentation may lead individuals to professional success or stagnation.

4.1 Labor Insertion

The points in time when graduates enter the labor market or the processes through which they access it are decisive factors of influence on labor trajectories. The convergence of several factors determines the direction of an emerging labor pathway; the individual's decisions are related to his or her social and cultural capital.

Graduates from a professional degree program develop mechanisms to enter the labor market. These mechanisms, indirectly, guide their professional activities and labor conditions. The mechanisms can be classified into three groups.

4.1.1. Relational Mechanisms or Relational Capital

Relational mechanisms comprise an individual's personal relationships and social networks; they may vary in quantity and quality according to the individual's ability to develop them. Family or friend relationships are important when finding the first job; while friend or acquaintance relationships are common when getting the current job position. According to Boado (1996) and Jiménez (2005), every two out of three graduates get their current job through the latter.

It is important to mention that this type of mechanisms works effectively in both sides of the occupational scale. In other words, individuals enter the labor market; however, social networks or connections work as an ascending mobility device but sometimes only. To certain extend, they work as workforce allocators as far as work positions are concerned and, as Boado (1996) states, they are equivalent to those of their origin The ascending path of a labor trajectory depends on the actions an individual takes.

4.1.2 Market Mechanisms

Market mechanisms are formal and impersonal devices within certain contexts, where the evidence of professional competency to employers is what is important. The entrance to the labor market is basically based on two main requirements: professional training and working experience, which are tested at the personnel selection recruitment process, and proved by performance tests and examinations. People are recruited through advertisement adds. Some of the disadvantages are conditioned by the flexibility and instability of the labor market. Nowadays, individuals must compete and continuously improve their educational training in order to get a job, keep it and be promoted to other work positions.

4.1.3. Combined Mechanisms

Combined mechanisms blend all the aforementioned mechanisms, which provide the individual with better opportunities. This category considers self-employment, which includes that graduates may develop or not activities related to their professional field, and they may be directed or not toward professional success according to the individual's inherent factors.

Graduates' labor development is studied in two moments in time: previous entrance to labor market and labor insertion once the individual graduated. It is important to know the labor market incorporation process of individuals after they graduated: insertion time frame, causes that led the individual to take a job offer, formal requirements for insertion, main labor market insertion mechanisms as well as employment, unemployment and sub employment rates.

4.2 Professional practice and Development Stage

Professional practice is a concept used to understand the characteristics of professional development in a defined social context (Guevara, 1976). Díaz Barriga (1992) considers it a social practice that corresponds to a division of social work, and according to it, several professional practices exist as a result of the role they play in the cumulative capital process. From a different perspective, it is the number of activities within a field of action which is relatively independent from the approaches or trends, and which allows transfer of activities.

Professional practice may include professional tasks related to the individual's work and academic fields. Glazman and Figueroa (1991) defines it as the work specifications related to the career and, according to them, it has two dimensions: one related to the type of activities delimited by the professional field, and the second one related to graduates' levels of behavior. The analysis of the professional field involves identifying individuals' work functions and activities, as well as the field where they are developed, and their relevance and social demand. It is important to describe the professional development, hierarchy levels, mobility, and ascending potential.

According to the time that an individual has been in the labor market, the trajectory may be classified into stages. Vargas (2000) identifies three stages for the development of a professional career: the initial career stage, mid- career, and late career stage. Within these three stages, Vargas refers to different processes, which help to develop skills, knowledge and obtain qualifications that are required to stay and develop in the professional field. The author refers to an individual who develops his or her professional career in one institution only; however, when she refers to stages, she considers the individual's processes for the aquisiton of labor competences, and sticks to the stages related to the entrance into the labor market.

4.2.1 Initial Career Stage

This stage involves the processes of socialization and skill development. Work centers in routine and technical tasks. The initial career stage is crucial to show professional competence, though formal training and knowledge on the field are irrelevant and inadequate for individuals to solve problems at this stage (Vargas, 2000). These trajectories are characteristic from individuals who have been less time in the labor market or from those who have been enough time in the market but whose professional activities stagnated as a consequence of the lack of continuing education (Jiménez, 2005).

4.2.2 Mid Career Stage

In this stage tacit knowledge is acquired by individuals and they evolve from specific tasks to positions of higher level and depth; vertical mobility favors those who have developed skills as well as technical and social competencies (Vargas,

2000). Individuals who occupy mid or high hierarchy levels develop specialized professional functions, and relational mechanisms. Also, they complete continuing education courses, and have been in the labor market for a long time(Jiménez, 2005).

4.2.3 Late Career Stage

In the late stage career individuals have achieved a level of technical or managerial specialization. They have a broad knowledge on the company, but their field and scope are limited. They have fewer opportunities for vertical mobility (Vargas, 2000); however, Ruiz (2000) states that the most successful trajectories belong to those who have long been career developing and/or possess specialized knowledge.

4.3 Labor conditions and Labor Market Characteristics

The labor market has suffered important changes in the last years caused by the lack of economic growth, the reduced need for work force as well as the globalization and flexibility trends. Labor market segmentation based on the educational level has favored individuals who have shown greater cultural capital. This increases salary difference between qualified and non-qualified employees, small and large companies, as well as organizations of the public sector.

The labor market segmentation and its restructuring trends, according to Weller (2000), have triggered processes of heterogenization and flexibilization within labor relationships, which have caused a slow decrease of labor quality standards: insufficient wages, unfavorable working conditions and salaries, labor instability and less benefits coverage. Also, the economic crisis has generated higher unemployment rates. As a result, there has been a higher participation of women in the market; a greater demand for workers who not only are experienced and have higher education levels but are better qualified also, as well as a disproportional growth of the informal sector. On the other hand, salary difference between genders have decreased, which is reflected on the increasing number of women who participate in the labor market, and who are also prepared by high education institutions.

In order to contrast general trends within the labor market to those in the professional field, this dimension describes information on the sector, the type of institution, hierarchical level, type of position, hiring, shift hours, benefits, payment methods, total salary, and promotion potential.

4.4. Mobility and Occupational Positions

Buontempo (2000), Boado (1996) and Herranz (1990) state that it is necessary to analyze aspects such as mobility and occupational positions to draw and describe graduates' trajectories. Herranz considers important to study factors related to the individual's attitudes, perceptions, and principles which prevail and arise as the

individual develops his or her working experience. These factors help to know the labor market through individuals' experiences, expectations, and preferences.

Buontempo (2000) agrees with the ideas of Bourdieu. He states that job positions occupied by individuals are in fact transitions within the social space and which are influenced by the forces and mechanisms that structure and configure individuals' trajectories. Individuals' potential depends greatly on what Boado (1996) calls qualification and according to the author it is based on three moments: the level of instruction acquired at the educational system, the training the individual acquired, and the individual's working experience. From this perspective, it is possible to observe the continuity or stagnation of the trajectories of a group as well as the connection between the employees' contribution and labor demand requirements.

The individual's occupational mobility can be analyzed through two types of movements: internal and external. Inter-labor or internal mobility is the individual's career succession at different organizations and it may present the following characteristics: it is an indicator of ascending and descending positions, or immobility, this is the individual stays in the same hierarchical position.

The external or intra-labor mobility is characterized by shifting to and from different job positions. According to Pacheco and Parker (2001), external mobility is described as the times an individual enters or exits the labor market with or without periods of unemployment. Jiménez (2005) classifies trajectories by grouping the external mobility based on the intermittency of individuals who enter and exit the labor market without being unemployed; the unemployment of those individuals who have these events at some point in time, and those who have no mobility and describe a continuous trajectory.

The analysis of this dimension includes factors such as the number of jobs, continuance in the first job, continuance at different jobs, periods of unemployment, labor movements, decisive factors for labor movements, positions held, and causes of change. All of them allow the description of occupational mobility.

4.5 Intragenerational Mobility

In this dimension, graduates'socioeconomic conditions are explored in two moments in time: while graduates are studying their bachelors' degree program and at the present time.

In the last decades, mobility of parents and the off-spring has increased considerably as a result of the various factors of the current context. Communication fluidity, the availability of higher educational facilities, and low public institution fees are some of the elements that have affected the differences between the educational level of parents and the off-spring. This confirms what Muñoz Izquierdo (1994) states about the fact that universities do no not counteract the influence of family background on the development of graduates attitudes and

principles. Graduates are exposed to socializing processes which reinforce the attitudes and principles acquired within the family environment.

Buontempo (2000) states that parents have goals for their children. Education is a factor associated to positive mobility, so children are encouraged to finish higher professional studies than those of their parents. However, the occupational structure conditions the mobility between parents and graduates to a micro-social level, where individuals according to their relational and cultural capitals enter into chains of mobility by occupying higher hierarchical positions, but without changing social status.

It was found that graduates' fathers were in a better educational and social situation, than mothers were, and that fathers reached higher work positions. Also, that graduates were better paid than their parents were. Muñoz (1994) says that the graduate is more likely to continue with graduate studies, and occupy higher positions than the ones occupied by his or her parents, as a result of his or her studies.

The analysis and research of social and family background on graduates or trajectories allows comparing the levels reached by parents and their off-spring. Jiménez (2005) found that in the case of the agricultural biologists of the Autonomous University of Tlaxcala (*Universidad Autónoma de Tlaxcala*), the comparison between parents and their off-spring on the educational and occupational levels, as well as on the economic conditions, shows evidence of what is sociologically called intra-class mobility which does not imply a different social class. Also, it was found that most of parents were from a low socioeconomic level, where elementary education predominated, and mothers were housewives. Consequently, parents and their off-spring become part of what is known a chain of mobility in the labor market. Higher hierarchical positions which require of qualified labor are occupied by those who have a higher academic level as a result of the education completed and the combined capitals developed as one draws the educational and labor trajectories.

V. Conclusions

Trajectory studies offer a methodological knowledge alternative, which allows analyzing the relationship between education and labor paths; professional activities and labor market characteristics, as well as go deep inside the factors that determine individuals' different paths. These research studies give an overview of the professional and labor conditions individual's face, as well as they help to identify specific situations that are characterized by favorable labor conditions for some individuals or unfavorable for others.

Reviewing numerous researches helped to identify the elements that facilitate the design of trajectory studies such as individuals, professional field, objects of study, type of studies, factors that influence, and impact dimensions.

These elements pose questions, alternatives, disjunctives, and theory-methodological decisions to the researcher when he/she is doing trajectory studies. These studies may result in an analysis model which guides the interpretation of the gathered data obtained from individuals and describes the labor paths and their conditions; as well as the individuals' labor, social and economic achievements and obstacles, based on factors that influence and the moments of transition

References

Boado, M. (1996). Movilidad ocupacional y mercado de trabajo: las caras ocultas del empleo urbano en Montevideo. *Revista de Ciencias Sociales*, *12*. Retrieved May 3, 2001, from:

http://www.rau.edu.uv/fcs/soc/Publicaciones/Revista/Revista12/Boado.html

Buontempo, M. P. (2000). Inserción laboral de graduados universitarios: un estudio desde las trayectorias laborales. Corrientes, Argentina: Universidad Nacional del Nordeste.

Centro Interamericano para el Desarrollo del Conocimiento en la Formación Profesional. (2001). Synthesis of the research "Formación continua y trayectorias laborales". Retrieved May 1, 2002, from:

http://www.cinterfor.org.uy/public/spanish/region/ampro/cinterfor/temas/worker/doc/sind/viii/

Correa, J. T. (1990). Formación y práctica profesional del economista. Unpublished master's thesis, National Autonomous University of Mexico, Federal District, México.

Cruz, L., Sanz Menéndez, L., & Aja Valle, J. (2006). Las trayectorias académicas y profesionales de los profesores de universidad y de los investigadores del CSIC. Madrid, Spain: Consejo Superior de Investigaciones Científicas. Retrieved March 24, 2006, from: http://www.iesam.csic.es/doctrab2/dt-0608.pdf

De la O, M. E. (2000). Las mujeres frente a la flexibilidad: una reflexión desde la sociología del trabajo en México, 1988-1998. *Región y Sociedad, 12* (19), 83-134.

De la O, M. E. (2001). Trayectorias laborales en obreros de la industria maquiladora en la frontera norte de México: un recuento para los años noventa. *Revista Mexicana de Sociología*, 2 (1), 27-61.

Díaz Barriga, Á. (1992). Ensayos sobre la problemática curricular. Cursos básicos para la formación de profesores. Mexico: Trillas.

Elejabeitea, C. & López Saéz, M. (2003). *Trayectorias personales y profesionales de mujeres con estudios tradicionalmente masculinos*. Madrid: CIDE-Instituto de la Mujer-Mujeres en la Educación.

Glazman, R. & Figueroa, M. (1991). Panorama de la investigación sobre desarrollo curricular. In Á. Díaz Barriga, A. de Alba & E. González (Comps.), *El campo del currículo. Antología* (Vol. II, pp. 23-50). Mexico: National Autonomous University of Mexico, Centro de Estudios sobre la Universidad.

Guevara, G. (1976). *El diseño curricular.* Mexico: Metroplitan Autonomous University, Xochimilco.

Herranz, R. (1990). La inserción laboral de los técnicos especialistas de FP2: un análisis comparado de las orientaciones y la experiencia de empleo en tres mercados locales de trabajo. *Educación*, 293, 151-173.

Hualde A., A. (2001). Trayectorias profesionales femeninas en mercados de trabajo masculinos: las ingenieras de la industria maquiladora. *Revista Mexicana de Sociología*, 63 (2), 63-90.

Jiménez, M. S. (2005). *Trayectorias laborales de biólogos agropecuarios de la Universidad Autónoma de Tlaxcala*. Unpublished Doctorate Thesis, Autonomous University of Tlaxcala, Mexico.

Magendzo, S. & González, L. E. (1988). Trayectoria educativo-laboral de jóvenes egresados de educación media en sectores populares y su relación con la teoría de la atribución. *Estudios Pedagógicos*, *14*, 69-78.

Mayrofher W., Steyrer H., Meyer M., Iellatchitch A., Hermann A., Strunk G. et al. (2001). Managerial careers in a post industrial context. Toward a habitus based concept a managerial careers. Viena University of Economics and Business Administration. Viena, Austria. Retrieved April 14, 2009, from: http://www.wu-wien.ac.at/project/vicapp/toronto_paper.pdf

Muñoz Izquierdo, C. (1994). Formación universitaria y ejercicio profesional y compromiso social. Resultado de un seguimiento de egresados de la Universidad Iberoamericana. Mexico: Ibero-American University.

Navarro, M. A. (1998). *Educación superior y trabajo en Tamaulipas*. Unpublished Doctoral dissertation, National Autonomous University of Mexico, Federal District, Mexico.

Orozco, H. (2000). Seguimiento de egresados de la licenciatura en Biología Agropecuaria de la UAT. Generaciones 1988-1998. Unpublished manuscript, Autonomous University of Tlaxcala, Mexico.

Pacheco, E. & Parker, S. (2001). Movilidad en el trabajo urbano: evidencias longitudinales para dos periodos de crisis en México. *Revista Mexicana de Sociología*, 2 (1), 3-25.

Pérez Islas, J. A. (2001). Procesos de incorporación de los jóvenes al Mercado de Trabajo. Retrieved May 3, 2001, from:

http://cinterfor.org.uy/public/spanish/region/ampro/cinterfor/temas/youth/eventos/mex/ibero/per_urte.pdf

Pérez Islas, J. A. & Arteaga, M. (2001). Los nuevos guerreros del mercado. Trayectorias laborales de jóvenes buscadores de empleo. In E. Pieck (Coord.), Los jóvenes y el trabajo: la educación frente a la exclusión social (pp. 355-399). Mexico: UNICEF-CINTERFOR-OIT.

Ruiz, E. (2000). Formación, profesión y actividad laboral de los ingenieros de la industria manufacturera. El caso del área metropolitana de la ciudad de México. Unpublished Doctoral dissertation, Metropolitan Autonomous University, Campus Xochimilco, D. F., Mexico.

Valenti, G., Varela, G., González, R., & Zurita, U. (1997). Los egresados de la UAM en el mercado de trabajo. Investigación evaluativa sobre la calidad de la oferta de servicios educativos. Mexico: Metropolitan Autonomous University.

Valle, Á. & Barrón, C. (2001). Egresados de la UNAM, trayectorias laborales y empleo: el caso de las licenciaturas en administración y física (Research Advance). Mexico: National Autonomous University of Mexico, PAPPIT-CESU.

Vargas, R. (2000). Trayectoria profesional de los ingenieros en la industria maquiladora electrónica: el caso de Sanyo Video componentes. *Revista Electrónica de Investigación Educativa*, 2 (2). Retrieved June 5, 2001, from: http://redie.ens.uabc.mx/vol2no2/contenido-vargas.html

Weller, J. (2000). Tendencias del empleo en los años noventa en América Latina y el Caribe. *Revista de la CEPAL*, 72, 31-51.

Translators: Eleonora Lozano Bachioqui and María Isabel Ramos