

## [Mexican Journal of Educational Guidance](#)

printed version ISSN 1665-7527

Rev. Mex. Orient Educ. v.5 n.13 Mexico fev. 2008

# The effect of vocational guidance on career choice

Teresa De León Mendoza; Rafael Rodríguez Martínez\*

## SUMMARY

Choosing the professional field in which a person will spend their entire life is not easy, especially when the individual lacks the tools to make an informed and informed choice. Vocational discernment is a process that generates contradictions in young people, visibly impacting their attitudes. These young people often do not immediately pursue higher education or decide to change majors due to a lack of vocational guidance. At CBTa N° 1 in La Partida, Coahuila, incoming students must choose from five options offered upon enrollment. While some select certain majors as their first choice, others postpone their decision until they receive information and then make a decision. Therefore, the school offers a Vocational Guidance workshop that integrates aspects related to a personal and occupational project, as well as information regarding interests, aptitudes, and university preferences, using psychometric tests. This paper evaluates the impact of this course on incoming students.

**Keywords:** Career guidance, Interests, Aptitudes, University preferences, Choice, Careers.

## Introduction

When choosing a career path, young people often struggle with their decision-making process. Therefore, vocational guidance must enable students to interact with their own characteristics and those of their professional horizons. Therefore, the guidance counselor has the responsibility not only to place the student in a specific field, but also to train them to effectively navigate an increasingly changing and complex internal and professional world.

It is relevant to mention that the notion of Orientation was initially developed in the restricted field of vocation, that is, an innate inclination that guides an individual's interest toward certain activities.

### Personalized Services

#### Journal


 SciELO Analytics

#### article

 Spanish (pdf)

 Artigo em XML

 References of the article

 How to cite this article

 SciELO Analytics

 Automatic translation

#### Indicators

#### Share

 More

More

 Permalink

The changes that the concept of guidance has undergone are a consequence of the evolution of historical and social factors. Thus, in its origins and until 1925, the concept was a consequence of socioeconomic needs: adjusting each person's characteristics and abilities to the requirements of a profession, with the goal of achieving maximum performance at work (Vidal, Javier, 2001; González, JR & Omaira, L., 2003).

One aspect worth noting in this regard is what Dr. John D. Krumboltz of Stanford University put forward at the inaugural conference of the Association for Educational and Vocational Guidance (IAEVG) Congress, held in Switzerland, where he indicated that in these times it is necessary to make new considerations related to the objectives of Vocational Guidance, in addition to taking into account the fortuitous events, "coincidences" or opportunities that occur around people.

For some time now, there has been an effort to develop what has been termed the Planned Happening Theory . This theory emerged as a modification or amendment to the learning theory in Vocational Guidance presented by the author in 1996, which was an extension of the Social Learning Theory in Vocational Decision-Making.

The basic propositions of this theory are that humans are born with different characteristics and predispositions in a specific time and place that not even their parents can predetermine. Furthermore, they grow up in an environment where many chance events occur, providing countless learning opportunities, both positive and negative. Individuals can also generate these events and capitalize on them to maximize their learning opportunities.

The counselor's job is to facilitate the learning of skills, interests, beliefs, values, work habits, and personal qualities that enable each person (counseled, user, client, etc.) to create a satisfying life in a constantly changing world of work.

According to Molina (2001), Vocational Guidance in Basic Education is a process aimed at understanding various personal aspects: abilities, tastes, interests, personal motivations, based on the family context and the general situation of the environment in which one is inserted, in order to be able to decide about one's own future.

The above definitions recreate the practice of vocational guidance, where the guidance counselor, who may well be a teacher, has received training and preparation that enables him or her to offer advice and assistance to students and help them make decisions that will enable them to successfully progress in their academic and professional lives.

Counseling seeks to discover each individual's potential and ensure that each person has the opportunity to develop that potential to the fullest, in what they can best offer themselves and the world. It is presented as a process or set of actions to help others resolve critical and conflictual situations or meet needs to achieve a state of well-being.

With a vision of Guidance directed at the educational field, we can define it as "a process aimed at addressing students in the aspects of their personality, throughout all educational levels."

Chacón Martínez (2004), in *Vocational Guidance in Secondary Education* , proposes the analysis of the needs of students at this level, referring to decision-making, career choice, viability of the decision, and the transition from student life to the world of work.

Vocational guidance assistance has been a focus of attention in Venezuela, for example, where a national plan was developed in the 1980s through the National Center for Vocational and Professional Counseling (CENAVOP), comprised of a network of regional centers and supported by the infrastructure of school guidance services. The center's objective was to systematize the vocational guidance process so that it would respond to the needs of recipients and the requirements of the country's development plans (Ministry of Education, 1980).

The Vocational Guidance program "Deciding my Profession" is included in the curriculum proposal of the Ministry of Education for secondary and diversified education (1998), within the component of personal social development.

In the program, Career Guidance is understood as the conscious and systematic effort of the school and the community to help high school students understand themselves, understand the study and work opportunities available to them, and make conscious and responsible career decisions.

The program design offered, in addition to being inserted into the current curriculum of secondary and diversified education, has its socio-political foundation derived from article 103 of the Bolivarian Constitution of Venezuela and article 6-7-23 of the current Organic Law of Education.

For many teachers, young people, parents, and administrators, secondary and higher education students do not receive vocational guidance that provides them with tools that facilitate firm, consistent, and responsible career decision-making.

This widely held assessment would have no relevance if the recipients of the education system demonstrated effective and efficient transitions both in their vocational training and in their careers. It would be even less relevant if obtaining a university or job placement were achieved without any difficulty.

In Venezuela, the placement of young people in vocational education and their subsequent entry into the workforce has been a real problem for both educational institutions and the labor market. Over time, it has been observed that higher education institutions are inadequate in the care and training of a large group of young people who cannot find a place in either higher education or the workforce.

Similarly, the small number of students who do get a place to study sometimes have no inclination toward the program they obtained, creating a situation worthy of studying.

It is important to highlight that the program taught at CBTA No. 1 (a secondary-high school) includes the use of psychometrics, although not with the idea of giving the student a diagnosis or placement, but rather with the purpose of increasing information about themselves and facilitating the comparison process when choosing a career.

The material used in this process theory (Rimada Peña, B. 2000) to identify step by step what happens in the mind when choosing a career is transparent and efficient; this material allows for the creation and management of a vocational snapshot through which we can discover students' dominant areas of strength.

This study was carried out at the Agricultural Technology High School No. 1, located in the La Partida ejido, Torreón, Coahuila, located at 25° 35' 53" north latitude and 103° 17' 48" west latitude, at an altitude of 1113 meters above sea level and an average annual temperature of 25° C.

The Center has a new student population of 450 to 480 students per semester, divided into twelve groups. This group is the one to whom the Vocational Guidance program is applied.

One of the activities required in the educational field is this orientation, which is considered of primary importance due to its role in the student's future life.

Vocational guidance is defined as a process of assistance for students in general, whether for new students or for the rest of the high school students who are close to finding work or choosing their university career.

Rimada Peña (2003) states that students need others to guide and support them in developing their life plans, where they will gather both internal and external information. Students must learn to recognize their interests, aptitudes, and dominant university areas so that they have the necessary resources to make better career choices.

We know that choosing what to do in the future is always a daunting challenge, especially when you're young and thinking about it for the first time. Career guidance offers two avenues: on the one hand, it requires self-knowledge; and on the other, it requires understanding the opportunities offered by educational institutions, the reality of the region's labor market, and the country's broad development paths.

Furthermore, young people must distinguish between what their family expects and, above all, what they expect of themselves; it's not just what they're going to do that matters, but also that what they do is done with love, creativity, and enthusiasm.

## Justification

Guidance must enable students to interact with their own characteristics and those of a professional horizon through the development of skills. Therefore, the guidance counselor has the responsibility not only to place students in an occupational area, but to train them to manage an increasingly changing and complex internal and professional world, with more stable and efficient tools.

Vocational guidance provides students with all the experiences that allow them to change their perception of their elective horizons. Therefore, the proposed approach posits that humankind must be educated to serve freedom, and that any assumption of responsibility requires that all human potential be brought into play.

The service provided at the CBTA for several years now has provided support to both newly enrolled students and those close to graduating.

Typically, an average of 450 new students are admitted to the program, enabling them to select a career based on their interests and aptitudes.

In the results obtained in a follow-up carried out over a period of five years (2001 to 2005) in which 2,155 students were received, of which 1,807 were advised and 367 requested changes, a percentage of 21.4 of the students who entered and who had already selected a career, changed their option once they received the Vocational Guidance program.

All of this allows us to evaluate the program's impact and recognize the need young people have for educational spaces that allow them to learn and develop a vision for the future.

Without a doubt, there are many causes that affect guidance; we can mention among them: the lack of a unified methodology that allows for this task; the lack of credibility in the service, which is viewed as a mere administrative procedure unrelated to theory; the lack of professionals with the profile of guidance counselors; and the lack of seriousness at the level of educational authorities in this training process, since there are guidance counselors at the middle level who are viewed only as prefects.

## Application of the methodology

The Center offers six programs: Computer Technician, Agroindustrial Equipment Maintenance Technician, Agribusiness Technician, Agroindustry Technician, and Agricultural Technician.

New students were included in this program and divided into 12 groups, although only 366 completed the workshop. The instruments used are part of Rimada Peña's (2000) methodology, which consists of a cognitive-perceptual process approach where university career guidance is based on the application of psychometric tests: interest inventory; aptitude inventory; and identification of university preferences.

This material is designed to allow us to conduct and manage a psychological X-ray, allowing us to locate and discover the students' dominant areas. The methodology allows for self-assessment, followed by the counselor's instructions; based on the number of tests administered and the total number of students, it is a time-consuming task.

There are five tests in the methodology, three of which are administered to students. Students compile a folder with the exercises they complete—the psychometric tests and the exercises from external information, such as brochures—where we analyze the programs the school offers, their curricula, career opportunities, and professional components of each program.

To measure the impact that Guidance has on career choice and the effect of age, average sex of Secondary School, place of origin (rural or urban), and type of Secondary School of origin (Technical, General, State) in new students of the semester August 2004–January 2005 of the CBT, the results of the Guidance Program that was applied to all students (N=366) were reviewed.

The experimental work consisted of administering a survey at the beginning of the workshop to gather necessary information on the variables under study and to determine the career options students initially choose (pre-workshop selection); that is, the option students choose when they arrive at the institution.

The workshop-course includes, first, completing inventories that allow students to identify their aptitudes, interests, and university preferences, and second, to learn about the career options offered by the institution. At the end of the semester, students complete the survey again to learn about their career options (post-workshop selection) and identify whether this change was a result of the course taken.

The psychometric inventories or tests that are applied are:

*Interest Inventory* - Its purpose is to measure and inform the student to what degree there is an interest or affective response towards a certain occupational activity, which allows a diagnosis of probable options, finding usefulness in this instrument for the student to confirm, corroborate or discover their strengths. The interests analyzed in this methodology are 12: Biological, Mechanical-artifactual, Rural, Geophysical, Social Service, Literary, Organization, Persuasive, Calculation, Accounting, Musical Artistic-Plastic, and Scientific.

*Skills Inventory* - This inventory measures and informs students of the degree of an occupational skill or aptitude, as well as their willingness to perform an occupational activity and the responses they have developed in their environment. This methodology analyzes 13 skills: Abstract-Scientific, Visual-Motor Coordination, Numerical, Verbal, Persuasive, Mechanical-Artifactual, Social, Managerial, Organizational, Musical, Artistic-Plastic, and Spatial.

*College Preference Inventory* - Considering that most high school students aspire to a college degree, this exercise allows students to develop a vision of the future of the university world. This methodology classifies the available majors into six areas: Physics-Mathematics, Chemistry, Biology, Administration, Social Studies, and Humanities.

At the end of the course, a parent-teacher meeting is held to share the same information with students. Approximately 350 parents attended, receiving information to help their children choose a career.

For the program evaluation process, data relating to enrolled students, students who took the course, number of students who changed their major, and corresponding percentages were captured in a spreadsheet and processed to obtain basic descriptive statistical information. Students' socioeconomic data (age, sex, secondary school average, and place of origin (urban or rural) and secondary school of origin (general, state, or technical)) were also recorded. Data on the effect of socioeconomic variables on career choice were analyzed using the X<sup>2</sup> test (Chi Square Tutorial, CONNOR-Linton), using the following mathematical model:

$$\chi^2 = \sum_{i=1}^k \frac{(O_i - E_i)^2}{E_i}$$

## Results and discussion

The general results of the diagnosis carried out on the effect of Vocational Guidance on the choice of career in new students from the semester August 2004–January 2005, showed that of the 366 students served, 124 of them (33%) changed career after the Course-Workshop.

This data allows us to affirm that the results validate the hypothesis that upon entering the CBTa, some students do not have sufficient information to choose a major, since the percentage of those who decide to change their first choice is quite significant.

The above highlights the importance of the vocational guidance process, since if motivation is considered one of the main elements of learning, correctly selecting the career path to study becomes an important tool for maintaining or increasing student motivation and, therefore, their academic performance.

The Vocational Guidance Program thus demonstrates its administrative and educational importance, as it facilitates a better distribution of students among the different career options offered, and, more importantly, assists students in their decision-making regarding their chosen career.

**1. Defining the Goal** - This step helps clarify what you want to choose. The goal is to choose a career that's congruent with your individual (congruent means choosing one or more options according to your interests and aptitudes). In other words, knowing the "what" and then knowing the "where" are key. Here, the five guiding principles of career decision-making are considered:

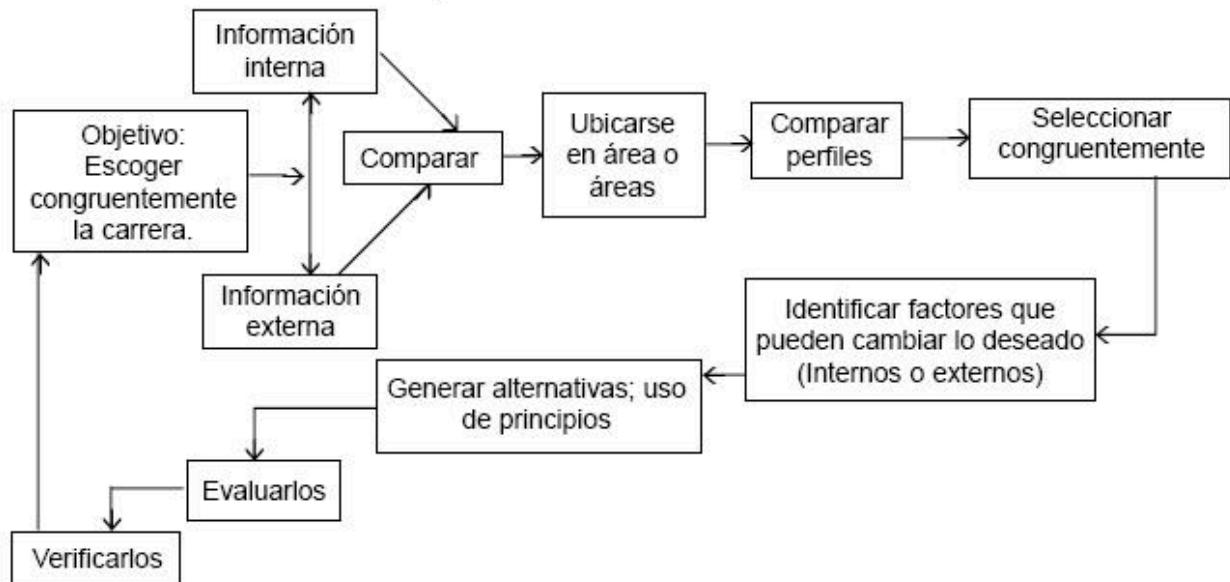
- *Principle of congruence* - the student chooses his options according to his interests and aptitudes.
- *Reality principle* - the student chooses his options according to the job offers.
- *Principle of similarity* - the student chooses a career from the same family if the one he or she initially chose is not within his or her reach.
- *Residual principle* : the student chooses from several options and from different families the one that is in second, third or fourth place.
- *Alloy principle* - the student makes an alloy, if he has a preference for two careers from different families.

**2. Gain internal and external information.-** The student making a decision must have information available to carry out the process. This includes a subject whose personal history (internal information) has developed a series of aptitudes and interests that will have preferences over others. When we talk about external information, we refer to the also relevant knowledge of educational offerings through printed materials, visits to facilities, etc.

**3. Evaluate and select the career.-** Evaluation is considered the most appropriate process to choose one option among several.

**4. Consider the circumstances and generate alternatives** . Students learn to compare their choices with the circumstances; in some cases, alternatives will have to be generated, such as studying a similar or alternative degree.

**Procedimiento que nos ofrece una probabilidad razonable de solucionar el problema de elección de carrera\***



\* Modelo cognitivo de orientación (metodología de Rimada Peña, 2000)

**5. Verification** - This consists of a supervision mechanism that allows the student to verify his or her decisions.

This model, thanks to its steps and sequences, allows for a precise diagnosis of the feedback and verification mechanisms of its products. The process paradigm that Rimada Peña (2000) supports in achieving the proposed objectives also functions as an organizer of the logical sequence in which the lessons and appropriate mental operations, such as observation, classification, ordering, and hypothesis testing, among others, should appear.

The model allows for career choice problems to be resolved in a differentiated and precise manner, also developing meta-knowledge. Most counselors agree that a decision consists of asking yourself what you can do most easily, what you like, and what the environment you work in offers, with the aim of entering a specific occupational field.

The method proposed here considers that to achieve the aforementioned goals, three major procedural components must be taken into account:

*The first procedural component is learning how to gather internal information:* Inventories of interests, aptitudes, and university preferences. The second part, derived from this last component, consists of administering two or more inventories, according to the student's outstanding areas. Typically, three dominant areas are selected for the following inventories, and their subtypes or sub-areas and program families are observed.

*The second procedural component is managing external information :* knowing the information on the professional horizon and field of job insertion, both in your region and in the country.

*The third procedural component is comparison :* This compares information sources and creates a professional profile for each student, all with a view to facilitating the fourth component.

*The fourth component, the decision:* This consists of the student, supported by the previous elements, being prepared for their vocational decision upon graduation and entering the workforce or professional world.

## Conclusion

The Career Guidance Program allows those who have experienced working with the methodology established at the CBTA to experience countless emotions, which unfortunately have not been recorded; among them, the level of satisfaction of both the counselor and the student.

The results of this research highlight the need for young people to have educational spaces that allow them to understand and develop a vision for the future. In addition to gaps in knowledge, students also lack motivation, as they are unaware of the strengths and weaknesses that lead them to make decisions.

Without a doubt, there are many causes that affect guidance. These include the lack of a unified methodology that allows for uniformity in the task; the lack of credibility in the service, which is seen as a matter of administrative procedure without understanding the theories that justify its importance; the lack of professionals with the profile of guidance counselors; and the lack of seriousness of educational authorities in this training process, since at the secondary level, there are guidance counselors who are seen only as prefects.

*Guiding a young person in choosing a career, more than just a routine aptitude test, is an opportunity to give meaning to a life and thus rescue it from mediocrity.*

G. Perzga

## Literature

Connor-Linton, Jeff. Chi Square Tutorial Department of Linguistics. George Town University. [ [Links](#) ]

Chacón Martínez, Olga. *Acción Pedagógica*, vol. 12, no. 1 / 2003. "Vocational Guidance Program for Secondary and High School Education." University of Los Andes - Táchira / lacho1@cantv.net [ [Links](#) ]

Díez, Gloria, and Vidal, Javier (2001). "Final report of the project: *The provision of guidance services in Spanish universities: innovation and adaptation to the needs of the university community*", Department of Philosophy and Educational Sciences, University of León, Spain. [ [Links](#) ]

García Ramírez, T. (1963). *Contributions to the Knowledge of Vocational Guidance*. Mexico: Trillas. [ [Links](#) ]

González, JR, and Omaira, L. "Recent Aspects in Vocational Guidance," *Ibero-American Journal of Education* (ISSN: 1681-5653). [ [Links](#) ]

Molina, D.L. "The Concept of Educational Guidance: Diversity and Approximation." *Ibero-American Journal of Education* (ISSN: 1681-5653) [ [Links](#) ]

Rimada Peña, Belarmino (2003). *A perceptual cognitive processes approach to vocational guidance*. 1st Edition. Ed. Trillas, Mexico. [ [Links](#) ]

Rimada Peña, Belarmino (2000). *Interpretation Manual for University Career Guidance Inventories (Teacher's Guide)*. Mexico: Trillas. [ [Links](#) ]

Rimada Peña, Belarmino (2004) *University Career Guidance Inventories*. Mexico: Trillas. [ [Links](#) ]

\* Rafael Rodríguez Martínez is a professor and researcher at CBTA No. 1, Ejido La Partida, Torreón, Coahuila, Mexico. Teresa De León Mendoza is a Master's student in Psychology-Counseling. Email: [tere\\_orientadora@yahoo.com.mx](mailto:tere_orientadora@yahoo.com.mx)

**Efecto del curso de Orientación Vocacional en la elección de carrera en los alumnos de nuevo ingreso del semestre agosto 2004 – enero 2005**

Alumnos atendidos	Cambiaron de carrera	%
366	124	33

Variables independientes que se manejaron en la investigación sobre «El efecto de la orientación vocacional en la elección de la carrera en los alumnos de nuevo ingreso del semestre agosto 2004 – enero 2005 del CBTA No. 1. La partida, Coahuila.

**Cuadro 1**

**Edades, cambios dados en edad de los educandos, porcentajes de cambios y la probabilidad**

Edad de los alumnos	Número	%	Cambios	%	P
14	29	72.5	11	27.5	>0.05
15	269	75.9	85	24.1	>0.05
16	50	66.7	25	33.3	>0.05
17	13	81.3	03	18.7	>0.05
18	01		00		>0.05

El análisis de los datos permite observar que la edad no influye en la elección de carrera de los alumnos del CBTA No. 1.

**Cuadro 2**

**Género, porcentaje de cambios y probabilidad de cambio**

Género	Número	%	Cambios	%	P
Masculino	195	78.3	54	26.7	>0.05
Femenino	171	70.9	70	29.1	>0.05

En el cuadro de variable sexo, los resultados encontrados muestran que tampoco éste es significativo en el cambio de carrera.



El análisis de los datos permite observar que la edad no influye en la elección de carrera de los alumnos del CBTA No. 1.

**Cuadro 3**

**Lugar de procedencia, porcentaje de cambios y la probabilidad**

Medio	Número	%	Cambios	%	P
Rural	134	72.	52	28.0	>0.05
Urbano	230	76.7	70	23.3	>0.05

Los resultados que se obtuvieron sobre esta variable, nos indican que el lugar de procedencia de los alumnos no influye en la elección de carrera.

**Cuadro 4**

**Promedios de calificación, porcentaje de cambios y la probabilidad**

Promedio de calificación	Número	%	Cambios	%	P
6.0 - 6.9	2	100	00	0	>0.05
7.0 - 7.9	90	81.1	28	18.9	>0.05
8.0 - 8.9	136	71.6	54	28.4	< 0.05
9.0 - 9.9	95	81.9	31	18.1	< 0.05

Se observa que son los alumnos con un promedio de 8.0 a 8.9, en relación con los de 9.0 a 9.9 deciden cambiar de especialidad después de recibir el curso de Orientación vocacional.

**Cuadro 5**

**Tipo de secundaria, porcentaje de cambios y probabilidad**

Secundaria	Alumnos	%	Cambios	%	P
Técnicas	203	77.8	58	22.2	< 0.05
Generales	84	72.4	32	27.6	>0.05
Federales	36	69.2	15	30.8	>0.05
Estado	32	64	18	36	< 0.05

La  $\chi^2$  nos arroja un resultado significativo en el cambio que se da, entre los estudiantes de secundarias técnicas en relación con las del estado.

**Mexican Journal of Educational Guidance**

Site: <http://www.remo.ws/>

 e-Mail

[contacto@remo.ws](mailto:contacto@remo.ws)