

## **Vivienda y educación: factores asociados al proceso de evaluación de alumnos en situación vulnerable de la región Otomí-Tepehua, Hidalgo**

*Housing and Education: Factors Associated to the Process of Evaluation of  
Students in a Vulnerable Situation in the Otomí-Tepehua Región, Hidalgo*

*Habitação e educação: fatores associados ao processo de avaliação de  
estudantes em situações vulneráveis na região de Otomí-Tepehua, Hidalgo*

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## Resumen

Con esta investigación se pretende indagar el impacto de las dimensiones de vivienda y educación como determinantes en el logro educativo de los estudiantes de nivel medio superior de la zona Otomí-Tepéhua, desarrollándose bajo una metodología mixta a través del paradigma del pragmatismo que busca y trata con ideas contradictorias de la realidad tácita de los fenómenos, concentrándose en conocer “qué funciona” con base en la pregunta de investigación. El tipo de investigación será de diseño de triangulación que busca utilizar la fortaleza de ambos enfoques metodológicos, mostrando como resultados la descripción de los factores señalados en las dimensiones de institución, alumnos y padres de familia desde una óptica del Interaccionismo Simbólico donde se describe como inciden los factores de vivienda y educación en la reprobación en los alumnos donde la lejanía de las poblaciones y las condiciones de vivienda se relacionan mutuamente en un aislamiento personal y en una distracción de la atención escolar al tratar de resolver problemas familiares y laborales, al mismo tiempo que la educación de la familia juega un papel muy importante, ya que se pone en juego la posesión de bienes a corto plazo frente a los beneficios que ofrece estudiar una carrera universitaria a largo plazo.

**Palabras clave:** educación, evaluación, factores socioculturales, situación vulnerable, vivienda.

## Abstract

The aim of this research is to investigate the impact of the dimensions of housing and education as determinants in the educational achievement of upper middle-level students in the Otomí-Tepéhua area, developing under a mixed methodology through the paradigm of pragmatism that seeks and treats with contradictory ideas of the tacit reality of phenomena, concentrating on knowing “what works” based on the research question. The type of research will be of triangulation design that seeks to use the strength of both methodological approaches, showing as results the description of the factors indicated in the dimensions of institution, students and parents from a perspective of Symbolic Interactionism where it is

described as key factors of housing and education in the reprobation in the students where the remoteness of the populations and the housing conditions are related to each other in a personal isolation and in a distraction of the school attendance when trying to solve familiar and labor problems, at the same time that the education of the family plays a very important role since it puts into play the possession of goods in the short term against the benefits offered by studying a university career in the long term.

**Keywords:** education, assessment, socio-cultural factors, vulnerable situation, housing.

### **Resumo**

Esta pesquisa pretende investigar o impacto das dimensões da habitação e da educação como determinantes na realização educacional dos alunos do nível superior da zona de Otomí-Tepesua, desenvolvendo sob uma metodologia mista através do paradigma do pragmatismo que busca e trata com idéias contraditórias da realidade tácita dos fenômenos, concentrando-se em saber "o que funciona" com base na questão da pesquisa. O tipo de pesquisa será o projeto de triangulação que busca usar a força de ambas as abordagens metodológicas, mostrando como resultados a descrição dos fatores indicados nas dimensões da instituição, dos alunos e dos pais de uma perspectiva do Interacionismo Simbólico, onde é descrito como afetando os fatores de habitação e educação na reprovação nos estudantes onde o afastamento das populações e as condições de habitação estão mutuamente relacionados em um isolamento pessoal e distraíndo a atenção da escola ao tentar resolver problemas familiares e de trabalho, ao mesmo tempo que a educação familiar desempenha um papel muito importante, uma vez que a posse de ativos de curto prazo está em jogo em comparação com os benefícios oferecidos pelo estudo de uma carreira universitária de longo prazo.

**Palavras-chave:** educação, avaliação, fatores socioculturais, situação vulnerável, habitação.

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## Introduction

The results of the tests of the Program for the International Evaluation (PISA) place Hidalgo in the fifth place with the lowest percentage of the population of 15 years of age that attends primary school or have a serious lag or do not attend school in UNICEF data (2015 , p.111). The previous argument is based on the advances registered in recent years in terms of educational inclusion and permanence of children in the classrooms, at the same time the same source presents the results of PISA that "show that at 15 years the proportion of adolescents who are below level II (that is, who do not have the capacity to participate in the knowledge society) is 58% in mathematics (22nd national place), 48% in science (19th) and 16% in reading (21st) ".

For its part, Fabre (s / f., P.4) states that in the interior of Hidalgo most of the households in conditions of poverty are in rural areas.

In parallel, the municipalities that comprise the Otomí-Tepehua area, such as Acaxochitlán, Agua Blanca de Iturbide, Huehuetla, San Bartolo Tutotepec and Tenango de Doria (Government of the State of Hidalgo, Basic Statistics Information 2015-2016), are considered by the National Institute , Statistics and Geography (Inegi, 2010), the National Population Council (Conapo, 2010) and the National Council for the Evaluation of Social Development Policy (Coneval) with a high and very high degree of marginalization; Due to its geographical location in the Eastern Sierra, natural wealth and poverty contrast, becoming one of the most vulnerable areas of the state of Hidalgo. The Otomí-Tepehua zone, according to the census of INEGI (2010), has 691 schools that serve 37,678 students concentrated mostly in basic education and 26 upper secondary schools.

This article shows part of the research called "Description of socio-cultural factors associated with the evaluation process of students in vulnerable situations in the Otomí-Tepehua region, Hgo.", A project supported by the Sectoral Research Fund for the Evaluation of Education CONACYT-INEE. In accordance with the National Development Plan (2013-2018) that envisages an inclusive Mexico, this limits the development of public policies based on statistical evidence, whose planning uses the best information and evaluation inputs, as well

as international best practices ( PND, 2013), for the benefit of our society and vulnerable groups.

The general objective of the project that gave rise to this article is set out below: to evaluate the learning of vulnerable students of upper secondary education in the Otomí-Tepehua area.

In addition to the above, the research question of the general project is presented from which the present article has been detached: What are the sociocultural factors associated with the evaluation process of students in vulnerable situations in the Otomí-Tepehua region?

### **Research hypothesis.**

The quantitative study requires by nature of a hypothesis a priori, which is written as follows: the dimensions housing and education directly affect the process of evaluation of students in vulnerable situation in the Otomí Tepehua area.

The qualitative study requires a research assumption once the conceptual categories, research subjects and the hermeneutical variables have been delimited, which is presented as follows: the research subjects have a meaning oriented to diminish the possibilities of obtaining a good academic performance against the possibilities offered by their housing and education environment.

## Method

The present investigation was carried out through a qualitative-quantitative methodology seeking the usefulness of the research carried out and reflecting on the complementation and contradiction of the data found in the reality of the Otomí-Tepehua area, based on the research question . One of the reasons why pragmatism has been chosen as a paradigm of mixed methodological research is because it works by applying it in scenarios and social phenomena of an overarching reality. The type of mixed research that will be applied is the design of Triangulation, which aims to use the strength of both methodological approaches to obtain complementary information regarding the same research problem; This is done in a single stage where the information obtained is collected, processed and analyzed simultaneously (Creswell and Plano, 2007, pp. 3-5).

The steps were the following:

1. Approach to mixed problems. Qualitative and quantitative questions were posed in the same data collection instrument: to pose a mixed question that amalgamates the interviewee's perception.
2. Review of the literature in order to obtain the state of the art.
3. Approach of the a priori hypothesis (for the quantitative part) and the assumption of the research hypothesis (for the qualitative part).
4. Research design: the type of research was mixed, not experimental, descriptive, triangular, transversal, in situ (Hernández, Fernández and Baptista, 2003).
5. Sampling: probabilistic and concurrent (parallel), also by criteria and hermenetic (interpretive).
6. Data analysis: it was carried out with the computer programs SPSS, Atlas ti and Nvivo.
7. Results: they are presented separately but converging in order to respond to the objective and the research question. To carry out the triangulation of data it will become necessary to

use the observation and interpretation of the phenomenon from a statistical perspective compared with the discursive analysis of the research subjects in the coincidences and suggestions that come out during the same, the inconsistency in the findings will not diminish the credibility of the interpretations, on the contrary it will complement the same according to the method. The validity of the analysis of the phenomenon will be supported, one, in the principle of theoretical saturation and, two, in which the interviewees agree on the opinions expressed in the data collection instruments, the internal validity of the project is related to the search From a causal and explanatory relationship, external validity is centered on the generalizable result of the concepts. The evidence related to the reliability analysis was carried out through Cronbach's alpha coefficient, allowing the internal consistency between the correlation of the items of the instruments used, basing the reliability on the highest value of the found alpha, considering for this project that 0.80 will be an acceptable value in the investigation.

## **Analysis of the information**

### **Collection of information**

The defined data collection technique was based on the methodology and a mixed approach was applied given that surveys and interviews were applied to the research subjects regarding the research question and, given the general objective of the project, it was supported not experimentally in virtue that the variables were not manipulated and the data were collected directly where the phenomenon to be studied is observed for what was in situ, in addition the direct observation of the living and school conditions allowed to qualitatively describe the factors of reprobation in the Otomí-Tepehua zone, it should be noted that the surveys and interviews were applied in a single moment in each community or municipal seat, which allowed to be transversal, it is also worth noting that the probabilistic sampling, when complemented with the theoretical saturation principle, was very useful because of the geographical proximity of the communities and given the conditions of insecurity and distance from them.

### **Compilation of information**

The compilation was carried out electronically through a database derived from the data collection instrument with which the elaboration of graphs by category was made, by socioeconomic dimension of Conapo and by criteria of the Organization for Cooperation and Development. Economic (OECD); At the same time that an analysis of the answers to the semi-structured questions of the same instrument was carried out, it should be noted that a special analysis was carried out for students who presented failure rates with those who did not, in addition to the discursive analysis of the subjects of research based on the principle of theoretical saturation for both subjects and communities, the foregoing to comply with the methodology of this project that says: "The type of mixed research that will be applied is the design of Triangulation, which has as its purpose using the strength of both methodological approaches to obtain complementary information regarding the same research problem [...] will be presented separately but converging in order to respond to the objective and the research question. To make the triangulation of data it will become necessary to use the observation and interpretation of the phenomenon from a statistical perspective compared to the discursive analysis of the research subjects' analyzes in the coincidences and suggestions that come out along the same, the inconsistency the findings will not diminish the credibility of the interpretations, on the contrary, it will complement the same according to the method."



## **Discussion**

### **Housing dimension**

It should be noted that a large part of the population has access to basic housing services, at the same time that virtually 100% of the subjects surveyed have electricity service; so it is inferred that the housing dimension is not a directly determining element in the phenomenon of reprobation, but it is a complementary element in the observed phenomenon, since the aspirational question of the research subjects regarding the improvement of their living conditions contributes to the abandonment of their aspirations to a higher level because young people do not see in the short term the economic benefits of continuing to study and prefer to work not only to solve their immediate economic problems, but also as an example that their neighbors have achieved. build houses that are appreciated with a better social status and drive vehicles that appear ostentatious, prefer to emigrate to the United States to try to match or exceed the level shown by the aforementioned neighbors; this becomes a kind of neighborhood competition where in different communities buildings with certain Anglo-Saxon architecture dyes are observed in buildings where small simple buildings are combined with works with the characteristics mentioned above.

It should be noted that the household items of the research subjects are solved in the elementary, since most of them have television, refrigerator, washing machine and radio; It is striking that mobile telephony is in the third place in the standards of the basic elements of housing, above a computer, washing machine and radio; this leads to the transfer of knowledge and culture through the mass media and perhaps the identity that characterizes their region leaves it in the background, the media is not blamed for the above, but it is observed that it is difficult to find people dressed in the original forms that characterize them.

### **Education dimension**

The education dimension presents a problem that is aggravated as the educational level is raised, since it is observed that in the homes of the subjects of research the members older than 15 years 76% reported that no person can not read and write; Regarding the primary level, 59% reported that no person over the age of 15 did not finish their studies in this area; in the secondary level, only 7% reported that in their house no person has completed secondary school; therefore, it is inferred that the primary level and even the secondary level is covered and attended not only by the educational authorities and the government, but also by the intention of parents to send their children to schools, it is also possible to affirm the healthy intention of high school students to attend their studies in this area.

However, the percentages move unfavorably for the baccalaureate level, as 63% do not have a finished baccalaureate, a situation that worsens for technical and university studies, since 72% do not have a technical or university degree, this is consistent with the approach of the problem under the cycle that is formed from people who know how to read and write to those who do not have a university degree, that is, apparently the optimum level of education indicators reaches secondary school and after the baccalaureate begins a decrease in said cycle and that the phenomenon of desertion finds its starting point in the transition from secondary to high school and that, therefore, affects regional development.

## Conclusions

The factors considered, housing and education associated with the process of evaluation of learning converge in educational achievement, not as isolated events, but as a series of elements that students make their own and intertwine, generating a chain of meanings with the above and symbols that affect the academic performance and the achievement of the studies of the research subjects.

The above statement is based on the statement of Blumer in Ritzer (s / f, p.252) that is cited: "If it is declared that certain types of behavior are the result of particular forces that produce them, there is no need to worry by the meaning of the things toward which human beings act ", it is inferred then that the students object of study are able to modify their meaning in the face of the adversities presented by housing and education factors on the quantitative basis of the statistical interpretation that results from students with performance problems and students without problems of academic performance and discursive analysis derived from the interviews applied to them.

On the other hand, the remoteness of the populations and the housing conditions are mutually related, generating a meaning of personal isolation of the subject which brings as a consequence the need to leave the context to not only know, but to improve the level of life; this act becomes a short-term need, since it represents a pressing need, both personal and family, for the short-term improvement of living standards that the study can incorporate a better long-term life.

There is a force that comes close to the factors directly determining the phenomenon studied, so the housing conditions have a relevant significance because the fact of having basic life standards to face the challenge that their studies represent is a double challenge because compared to other latitudes (due to the effects of the media) young people must redouble their efforts to overcome the school requirements and the needs of their own home, which is why many have to work to improve their family income. In this process the student bears the burden of school, work and emotional and causes a discouragement and emotional

involvement where the subject distracts his attention in trying to solve the problems of his age and, de facto, presents along with all the previous argument.

The education of the family plays an extremely important role, because having parents who reach the maximum level of secondary school family environment revolves around reaching this level that although the parents have the desire that the young person improve this standard the longing of possession of goods is greater compared to the benefits offered by studying a university career. It is likely that the children of the research subjects have a greater aspiration because, based on the same symbolic interactionism, the significance of the new generations will be influenced by the degree of education of their parents, so the educational level would have to improve to the passage of the generations.

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