



REVISTA

# CÁTEDRA

## Incidencia de los factores personales, ambientales, y de interacción social en la deserción escolar en educación a distancia – virtual

*Incidence of personal, environmental, and social  
interaction factors in school dropout in distance - virtual  
education*

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### Resumen

La deserción escolar es, probablemente, el mayor problema que afecta a los sistemas de educación a distancia – virtual. Por ello, estudios contemporáneos mencionan que es necesario investigar con sentido crítico los factores que generan esta problemática. En este sentido, en el programa del Bachillerato a Distancia – Virtual de la Unidad Educativa Juan Montalvo de la ciudad de Quito, como unidad comprometida con la educación de personas jóvenes y adultas con escolaridad inconclusa, se planteó como objetivo evaluar la incidencia de los factores personales, ambientales, y de interacción social en la deserción escolar de este programa. El estudio se desarrolló bajo un enfoque cuantitativo de corte correlacional, y para el levantamiento de la información se aplicó un cuestionario en línea a estudiantes de primer y tercer año de Bachillerato General Unificado. El análisis de los resultados se realizó con el 5% de error, y se aplicó la prueba Chi-Cuadrado para determinar la independencia o correlación entre las variables. Los resultados indicaron que la mayoría de los factores personales y ambientales no inciden de manera significativa en la deserción



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escolar. Mientras que, los factores de interacción social, en su mayoría, demostraron incidir significativamente en la decisión de desertar o abandonar los estudios.

## Palabras clave

Deserción escolar, educación a distancia, educación virtual, factores personales-ambientales, interacción social,

## Abstract

Dropout is probably the biggest problem affecting distance - virtual education systems. For that reason, contemporary studies mention that it is necessary to investigate with a critical sense the factors that generate this problem. In this sense, in the program of the Distance - Virtual Baccalaureate of the Juan Montalvo Educational Unit of the city of Quito, as a unit committed to the education of young people and adults with unfinished schooling, the objective was to evaluate the incidence of personal, environmental, and social interaction factors in the school dropout of this program. The study was developed under a quantitative approach of correlation, and an online questionnaire was applied to first and third year students of the Unified General Baccalaureate. The analysis of the results was made with a 5% error, and the Chi-square test was applied to determine the independence or correlation between the variables. The results indicated that most of the personal and environmental factors do not have a significant influence on school desertion. While, most of the social interaction factors showed to have a significant influence on the decision to drop out or to abandon the studies.

## Keywords

School dropout, abandonment, personal and environmental factors, social interaction, distance education, virtual education

## 1. Introduction

A contemporary study in the Ecuadorian educational context mentions that school desertion is a latent problem that threatens the educational system, the student body, and the development of the country (Posligua, 2019). In fact, dropping out of school at any level and in any educational modality represents a very high social and economic cost, both for students and for educational institutions, and finally, for society in general (Morfin, González and Palomera, 2018).

This problem is even more acute in distance education programmes, since, although they enroll more students, they also face higher drop-out rates than the face-to-face modality. In this regard, Acuña (2018) mentions that dropout levels are usually 20% higher in distance education programs than in conventional education.

For decades, researchers have studied the factors that trigger drop-out in distance education, mostly at the higher education level. At the National Open and Distance University of Colombia, lack of economic resources and time incompatibility are the most important factors in drop-out, which fluctuates between 40 and 60% (Peralta y Mora, 2016). A program of the Instituto de Aprendizaje en Línea, in Mexico, reported that academic factors, mainly low school performance, generated a dropout rate of 61% (Morfin, González and Palomera, 2018). Similarly, the online leveling program for the degree in social work at the University of Guadalajara reported 40% dropout, mainly related to



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personal factors such as illness and employment status, among others (De Aguinaga and Barragán, 2007).

Although the problem of school dropout has been studied for several years, and in different educational modalities, it is necessary to mention that there are not many studies or research that provide sufficient information on the subject (Peña and Rodríguez, 2019). Few studies have been carried out on drop-out at the secondary school level in the distance mode, and even fewer studies have focused on drop-out in distance - virtual - secondary schools in Ecuador.

In this regard, in Ecuador, the Ministry of Education offers the Distance Learning - Virtual Baccalaureate through the Juan Montalvo Education Unit in the city of Quito. This program is developed through the educational platform Moodle, in a completely virtual way and serves young people and adults who are behind in school, giving them the opportunity to complete their secondary studies. However, despite the fact that enrolment rates increase every period, there is a drop-out rate that worries teachers, coordinators and authorities. It is worth mentioning that there is currently no official data in the public domain regarding dropout levels for this program, nor is there a study to determine the causes of this problem.

All of the above-mentioned factors led to this research, since it made it possible to analyse the drop-out rate of the Virtual Distance Learning Programme and its relationship with personal, environmental and social interaction factors. Furthermore, no study has been carried out at the Juan Montalvo Educational Unit in the city of Quito to investigate the causes of this problem. Undoubtedly, identifying the factors that cause students to drop out of the Distance Learning - Virtual Baccalaureate is a good start to understanding this problem.

With what has been said up to this point, the objective of the present study is to evaluate the incidence of personal, environmental and social interaction factors on school drop-out from the Distance Learning - Virtual Baccalaureate programme. To this end, the first part of the article presents a brief theoretical approach to the concept of school dropout, to the models that allow understanding the phenomenon, and explains the theoretical framework used in this work. In the second part, the methodology used to obtain and analyze the data is detailed. In the third part, the main results are presented. Then, in the fourth part, the results of the study are discussed, and finally, in the fifth part, the most relevant conclusions of the work are pointed out.

### 1.1. School desertion

The term desertion, according to the Royal Spanish Academy, comes from the Latin *desertio* meaning abandonment. In this sense, one can qualify as a deserter that person who resigns, desists or abandons an activity, goal or objective that kept him/her linked to an institution (González, 2002). In other words, desertion is a concept that indicates cessation or withdrawal from a process.

In the educational context, dropping out occurs when the student abandons all types of relationships that in some way kept him or her tied to the educational institution (González, 2002). This abandonment can be considered a multifactorial phenomenon, since it is caused by a combination of factors that originate in the educational institution, as well as in individual, family and social environments (Venegas et al., 2017).

In this regard, Muñoz (2013), mentions that dropping out of school is an act where the student disengages from the educational system due to causes of different nature. This



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assertion converges with that of Tinto (1982), who defines dropout as a situation faced by the student when he or she leaves the school process for one or several reasons, and fails to complete his or her educational project.

In Ecuador, the Ministry of Education defines drop-out as the number of students who dropped out of a school year before its completion, with respect to the total number of students enrolled in that school year (Antamba, 2015). This latter definition shows that, at times, the term dropout is associated only with the indicator that measures student absenteeism or abandonment of educational institutions (Muñoz, 2013).

With this in mind, it is somewhat difficult to provide a precise definition of dropout (Muñoz, 2013), since several authors have defined it from different perspectives. However, there is consensus on defining it as the student's abandonment or absenteeism from the educational system, leaving aside all academic training (Pugo, 2017). In any case, no definition expresses the full complexity of this problem, so each researcher adopts the definition that best suits their objectives and the problem to be investigated (Tinto, 1989).

## 1.2 Theoretical models explaining school desertion

For the study of dropout in general, there are different theoretical models that try to explain the reasons why students drop out or leave an educational institution. Most of the so-called theories are organized as models, in which they relate various variables and events that explain and describe certain student behaviours (Cruz, 2003).

One of the most frequently cited authors in studies on the subject is Vincent Tinto, who, based on Durkheim's work, mentions that the conditions that lead a person to suicide are similar to those that lead a student to drop out of school (Benítez, 2016). Tinto (1989), after an exhaustive analysis of studies on the subject, classifies the factors that precipitate dropout into five frameworks: 1) psychological; 2) social; 3) economic; 4) organizational; and, 5) interactional.

The first one addresses psychological variables such as personality, motivation, and skills of each student. The second framework addresses factors such as social status and gender as predictors of social advancement and school success. The economic framework establishes the causes that students manifest in terms of the costs of their decisions in relation to their income; this component is crucial when it comes to deciding whether to stay in school. In regard to the descriptors of the organizational framework, they refer to the variables attributable to educational institutions, such as administration, infrastructure, resources available to them, teachers, etc. Finally, within the inter-institutional framework is the reciprocity that may occur between the personal and the organizational sphere.

Vincent Tinto's vision is a general perspective that has served as a starting point for the rest of the theoretical models that have been developed by authors dedicated to the subject of school drop-out. These models present variations in their organization, but, conceptually, maintain the essence of this general vision with slight modifications according to the school context under study.

For example, Espíndola and León (2002) establish two frameworks for interpreting the factors that precipitate school drop-out, an extrasystem framework and an intra-system framework. The first addresses factors of the students' socio-economic situation and family context, while the second considers institutional, academic, and teaching factors. Thus, authors such as Vásquez and Rodríguez (2007), agree and synthesize the factors that



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influence school dropout in four groups, individual, socioeconomic, institutional and academic.

Likewise, in the field of distance education, García (2019) proposes three frameworks to explain the factors that influence school dropout: 1) factors attributable to the student; 2) factors attributable to teachers; and, 3) factors attributable to the educational institution. In the same sense, Frankola (2001), in a more detailed way, mentions that factors such as lack of accompaniment, low motivation, difficulties with technology, lack of support, inadequate course design and inexperienced tutors are the main causes of dropout in virtual distance education.

At this point, it should be noted that, at present, there are various models developed by authors that make it possible to explain the phenomenon of drop-out; however, there is a degree of consensus in establishing the variables related to this problem.

### 1.3 Theoretical model used in this paper

For this research, Rivera's model (2011) was taken as a theoretical reference. Based on previous theories, research and models, he suggests a model that groups in five categories the factors that promote the decision to drop out or remain in distance studies, these are:

- **Personal.** These include sex, age, marital status, number of children, area of residence, employment status, income level, educational aspiration, among others.
- **Academic.** Such as receiving academic counseling, quality of academic support, study habits, relevance and quality of learning content, school performance, evaluation process, among others.
- **Environmental.** This category considers factors related to the resources needed to finance studies, the student's workload, the support he or she receives from others, family responsibilities and his or her relationship with studies, work and family, among others.
- **Social interaction.** Among these are the quality of interactions in the course with teachers and among peers, teacher feedback in relation to academic progress, teacher availability through the communication channels provided by the educational platform, motivation transmitted by teachers and the institution; among others.
- **Technological support.** This category considers factors such as the management of the platform, the effectiveness of the resources it provides, the availability and relevance of materials, the support and guidance that students receive at the beginning of the course, the technological skills of students, among others..

This study, as mentioned above in the objective, refers to the results of personal, environmental, and social interaction variables.

## 2. Methods and materials

The present work was developed under a quantitative approach of correlational cut. According to Hernández, Fernández and Baptista (2010), this type of study allows us to know the relationship or degree of association between two or more categories or variables in a specific context. In this case, we sought to understand the relationship between personal, environmental and social interaction factors with the intention of dropping out or abandoning the Distance Learning - Virtual Baccalaureate program.



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## 2.1. Hypothesis

The hypotheses that were put forward for this study were

H1: Personal factors significantly influence the intention to drop out of the Distance Learning - Virtual Baccalaureate.

H2: Environmental factors significantly influence the intention to drop out of the Virtual Distance Learning High School.

H3: Social interaction factors significantly affect the intention to drop out of the distance learning programme.

## 2.2 Unit of analysis

The context of study corresponded to the Distance Learning - Virtual Baccalaureate program, offered by the Ministry of Education, and which is executed through the Juan Montalvo Educational Unit in the city of Quito. These collaborators were the students legally enrolled in six first year parallel courses and six third year parallel courses, both from the sublevel of the Unified General Baccalaureate, and who at the time of the study were studying the fourth and last didactic unit of the 2019 - 2020 academic period. The selection of the parallels was based on the accessibility of the researcher, as a teacher at this institution.

A total of 672 students were invited to participate freely and voluntarily in the study, of which 247 responded, corresponding to a 36% response rate. This percentage can be explained in the sense that several students, despite having been accepted into the programme, have never entered the platform, and on the other hand, a considerable number of students have dropped out in the course of the three previous teaching units. With the population of 672 students, the size of the representative sample is equal to 244, however, for the convenience of the researcher, the total number of students who answered was worked on.

## 2.3 Questionnaire – data source

This study used the questionnaire developed by Rivera (2011) in his doctoral thesis, who developed this instrument to investigate the causes that influence desertion in a distance learning university in Puerto Rico. According to the author, the instrument has been validated, reviewed and approved by a panel of experts in education research, and by the institutional review board of the university under investigation. The author also mentions that the instrument obtained a value of 0.932 for Cronbach's alpha, reflecting a high degree of reliability (Rivera, 2011, p. 41).

The questionnaire in reference was carefully adapted to the characteristics of the Distance Learning - Virtual Baccalaureate. With this slight adaptation the questionnaire consisted of three parts. The first part collected demographic aspects (personal variables) through closed questions. The second part consisted of statements concerning environmental and social interaction variables that had to be answered with the degree of agreement or disagreement in the Likert scale. The third part presented the control question that asked students whether or not they intended to drop out of school. The questionnaire was available for 30 days on a website, and the invitation was sent via message by the Moodle educational platform to the participants.

Table 1 below shows the questionnaire questions related to personal, environmental, and social interaction variables. As well as the control question related to the intention to drop



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out of the Distance Learning - Virtual Baccalaureate. The number in parentheses refers to the original question number in Rivera's questionnaire (2011)..

<b>Personal variables</b>	
1 (1)	Sex
2 (5)	Zone of residence
3 (2)	Age (years)
4 (3)	Marital status
5	Number of children
6 (4)	Work situation
7 (6)	Individual monthly income (dollars)
8	Student Status
9	Time you have stopped studying (years)
10 (8)	Educational aspiration
<b>Environmental variables</b>	
11 (32)	Family responsibilities make it impossible for me to study properly
12 (33)	I have enough economic resources to finish the Distance Learning High School - Virtual
13 (34)	My economic situation represents a pressure that hinders my studies
14 (35)	My family supports me in my studies
15 (36)	I feel that I have achieved a balance between my home, my job and my studies
<b>Social interaction variables</b>	
16 (38)	At the Virtual Distance Learning High School I feel lonely
17 (39)	The teachers of the Bachillerato a Distancia - Virtual transmit me enthusiasm to continue in the course
18 (40)	My teachers are available through the communication channels provided by the educational platform
19 (41)	My teachers provide me with feedback on my academic progress in a reasonable amount of time
20 (45)	In the Distance Learning - Virtual Baccalaureate I feel part of a learning community
<b>Control question</b>	
21	Did you ever intend to drop out of the Virtual Distance Learning Centre? [Yes/No]



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Table 1. Questionnaire questions

## 2.4 Information analysis

At first, in order to know the demographic characteristics of the participants, the analysis of the information concerning the personal variables was made in a descriptive way, this allowed to have an approach to the profile of the sample. In addition, the results of the control question were analysed. In a second stage, and with the purpose of testing the hypotheses, the statistical program IBM SPSS version 25 was used, in which the association or independence between the control question and each of the reagents referring to the personal, environmental and social interaction variables was examined by means of contingency tables (Chi-square test).

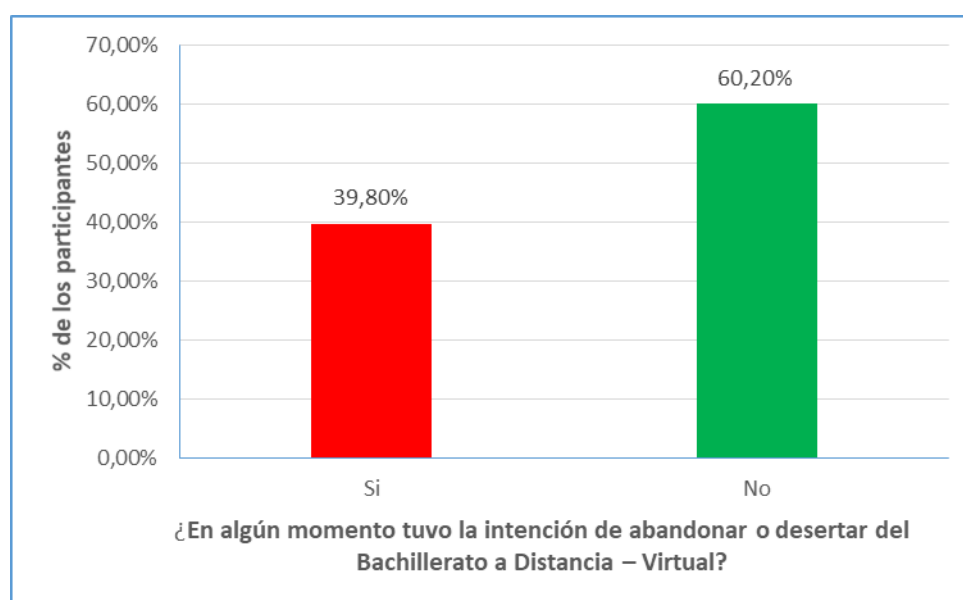
## 3. Results

### 3.1. Description of the sample

Based on the results of the personal variables obtained with the application of the questionnaire, it was determined that 51.5% of the sample are women, and 48.5% are men. In addition, 76.7 per cent mentioned residing in the urban area, while 23.3 per cent in the rural area. In turn, 51.4% stated that they were over 30 years of age. On the other hand, 64.1% of the participants claimed to be married, and 55.3% claimed to have more than one child. With respect to the employment situation, 48.5% of the participants indicated having a full-time job, however, 51.5% claimed to be unemployed, or otherwise working informally. Also, 72.8% stated that they had a monthly income of less than USD 400. With regard to the time they have stopped studying, 57.2% indicated that they have less than 10 years of schooling behind them, and with regard to educational aspirations, 85.4% of the participants expressed a desire to continue their studies at a higher level.

### 3.2 Control question

Figure 1 below shows the results for the control question concerning the intention to drop out or abandon the Distance Learning - Virtual Baccalaureate.



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Figure 1. Intention to drop out of the Distance Learning Programme - Virtual

When participants were asked if they had ever intended to drop out of the Bachillerato a Distancia - Virtual, 60.2% stated that they had not intended to do so, however, the remaining 39.8% of participants stated that they had intended to drop out. This result is a warning sign for the institution, in the sense that 4 out of 10 students have the intention of abandoning the educational program.

### 3.3 Chi-square correlation test

The following are the results of the correlation test between the intention to drop out of the Distance Learning - Virtual Baccalaureate and the personal, environmental and social interaction variables, based on the Chi-square correlation test. It was determined that of the ten personal variables, only three were significantly correlated (bilateral significance value obtained less than 0.05) with the intention of dropping out or abandoning studies. Similarly, it was found that only one of the five environmental variables was significantly correlated with the intention to drop out. On the other hand, it was found that four of the five social interaction variables were significantly correlated with the intention to drop out or abandon the Distance Learning - Virtual Baccalaureate. A summary of the results is shown in Table 2.

<b>Chi-Square of Pearson</b>			
<b>Personal, environmental and social interaction variables</b>	<b>Value</b>	<b>Asymptotic significance (bilateral)</b>	
Sex	5,652	0,217	
Area of residence	6,726	0,010	**
Age	2,471	0,116	
Marital status	11,019	0,001	**
No. of children	14,212	0,000	**
Individual monthly income	3,518	0,061	
Student Status	0,968	0,325	
Years of schooling	3,332	0,068	
Educational aspiration	0,345	0,557	
Employment situation	0,002	0,969	
Family responsibilities make it impossible for me to study properly	0,022	0,881	
I have enough economic resources to finish my distance learning degree - Virtual	10,952	0,001	**
My economic situation represents a pressure that hinders my studies	0,873	0,350	
My family supports me in my studies	4,052	0,064	



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I feel that I have achieved a balance between my home, my job and my studies	1,076	0,299	
At the Virtual Distance Learning High School I feel lonely	6,293	0,012	**
The teachers of the Bachillerato a Distancia - Virtual transmit me enthusiasm to continue in the course	0,468	0,014	**
My teachers are available through the communication channels provided by the educational platform	5,038	0,025	**
My teachers provide me with feedback on my academic progress in a reasonable amount of time	6,293	0,012	**
In the Distance Learning - Virtual Baccalaureate I feel part of a learning community	0,942	0,332	

Table 2. Results of the correlation test. Significance level: \*\* 0,05

Additionally, in order to interpret these results, a binary logistic regression model was used, for which it was necessary to recode the personal, environmental and social interaction variables (independent) to dichotomous or binary variables, 1 and 0. Likewise, in the model, the dependent variable is binary and takes the value of 1 if the student has intended to drop out or abandon the Distance Learning - Virtual Baccalaureate. According to the results it was found that:

- There is a statistically significant relationship between area of residence and intention to defect. According to the recoding, where the variable takes the value of 1 if the student resides in the urban area, it is interpreted that students who reside in the urban area are less likely to drop out or abandon the Distance Learning - Virtual Baccalaureate than those who live in rural areas.
- There is a statistically significant relationship between students' marital status and their intention to drop out of the Bachillerato a Distancia - Virtual. According to the recoding, the variable takes the value of 1 if the student is married, so it is interpreted that students who are married are more likely to drop out than those who are not.
- There is a significant relationship between the number of children and the intention to drop out. According to the recoding, where the variable takes the value of 1 if the student has no children or has a maximum of one, it is interpreted that students who have no children, or have a maximum of one, are less likely to drop out of school than those students who have more than one child.
- There is a statistically significant relationship between the intention to drop out of the Bachillerato a Distancia - Virtual and having sufficient economic resources to complete the studies. According to the recoding, where the variable takes the value of 1 if the student agrees with the statement, it is interpreted that students who have sufficient economic resources are less likely to drop out of their studies than those who do not.
- There is a statistically significant relationship between intention to drop out and feeling lonely in the Distance Learning - Virtual Baccalaureate. According to the



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recoding, where the variable takes the value of 1 if the student agrees with the statement, it is interpreted that students who feel lonely or abandoned are more likely to drop out of their studies than those who do not feel lonely.

- There is a statistically significant relationship between the intention to drop out and the enthusiasm conveyed by teachers of the Virtual-Distance Learning Baccalaureate. According to the recoding, where the variable takes the value of 1 if the student agrees with the statement, it is interpreted that students whose teachers transmit enthusiasm are less likely to drop out than those whose teachers do not communicate enthusiasm or motivation.
- There is a statistically significant relationship between the availability of teachers through the educational platform and the intention to drop out. According to the recoding, where the variable takes the value of 1 if the student agrees with the statement, it is interpreted that students whose teachers are available through the educational platform are less likely to drop out of studies than those whose teachers are not.
- There is a statistically significant relationship between the intention to drop out of the Distance Learning - Virtual Baccalaureate and the timely feedback provided by teachers. According to the recoding, where the variable takes the value of 1 if the student agrees with the statement, it is interpreted that students who receive timely feedback from teachers are less likely to drop out of school than those who do not.

In contrast to the above, the statistical results of the other seven personal variables: sex, age, income, student status, educational gap, educational aspiration and employment situation, showed that the values of bilateral significance exceed 0.05; therefore, it is deduced that there is no statistically significant relationship between these personal factors and the intention to drop out of the Distance - Virtual Baccalaureate. Similarly, the results of the other four environmental variables: family responsibilities, economic situation, family support, and employment-house-study balance, expressed that the values of bilateral significance are also greater than 0.05; consequently, there is also no statistically significant relationship between these factors and the intention to drop out. On the other hand, on the side of social interaction factors, feeling part of a learning community was the only variable whose bilateral significance value was greater than 0.05; therefore, it is not significantly related to the intention to drop out or abandon studies.

## 4. Discussion

### 4.1 Personal Factors

According to the results of this research, students in the Distance Learning - Virtual Baccalaureate who live in urban areas are less likely to drop out than those who live in rural areas. This result is confirmed by the findings of the National Institute for Educational Evaluation (2018), which mentioned that in 2017 the dropout rate in the Baccalaureate was lower in the urban area (4.3%) than in the rural area (5.5%). This result could be related to the fact that there are still rural areas in which access to the Internet, an indispensable resource for studying in the Distance Learning - Virtual Baccalaureate, is difficult.

Likewise, with regard to marital status, the results show that students who are married are more likely to drop out of the Virtual Distance Learning Baccalaureate. This finding ratifies the results found by Ruiz, García and Pérez (2014), who determined in their study of the Virtual High School at the Universidad Autónoma de Sinaloa, that one of the personal factors that most influences school dropout is being married. This is probably due to the fact that



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married students spend more time on family responsibilities, and not necessarily on school activities.

The last of the personal variables that shows a relationship with drop-out from the Distance Learning - Virtual Baccalaureate is the number of children. This condition, almost similar to the previous one, could be understood in the sense that students who have several children are obliged to work practically full time in order to be able to respond to the needs of their children, in addition to the time that they must dedicate to the care and upbringing of their children. This particularity decreases the time they can dedicate to studies with respect to those students who do not have children. This condition increases the probability of making the decision to drop out.

#### 4.2 Environmental Factors

As far as environmental factors are concerned, the only variable that is significantly related to the intention to drop out is that of having enough economic resources to finish the Distance Learning - Virtual Baccalaureate. This result corroborates the findings of Ruiz, García and Pérez (2014), who determined in their study that the economic factor is among the first causes of dropping out of school. This could be related, mainly, to the scarcity of money, which affects the lack of resources to be able to complete their studies.

#### 4.3 Social interaction factors

With regard to social interaction factors, the results show that the feeling of loneliness significantly affects the intention to drop out or abandon the Distance Learning - Virtual Baccalaureate. This finding confirms the results of Capera (2015), who concluded in his study on factors influencing drop-out in distance education, carried out at a University in Colombia, that the feeling of loneliness and abandonment on the part of teachers and the institution are the main factors influencing drop-out. This result could be related to the scarce follow-up and accompaniment on the part of teacher tutors and of the institution itself.

Likewise, the results show that the enthusiasm and motivation transmitted by teachers to students significantly affects the intention to drop out of the Virtual Distance Learning High School. This finding corroborates the results of Bryndum and Jerónimo (2005), who concluded in their study on motivation in telematic environments, that motivation is a strongly important component in the virtual distance modality, since without it the rest of the components are weakened to the point that student abandonment or desertion can occur.

Also, the findings show that timely feedback provided by teachers significantly affects the intention to drop out of the Virtual Distance Learning Baccalaureate. This result ratifies the results of García, Guajardo and Valdez, (2014), who found in their study about feedback as a tool for interaction, that the lack or scarce feedback from teachers significantly influences dropout in virtual distance education.

Likewise, the results indicate that the availability of teachers through the educational platform significantly influences the decision to drop out of the Distance - Virtual Baccalaureate. This finding confirms the results of González (2017), who concluded in his study about factors that favor the presence of teachers in virtual environments, that the permanence or abandonment of students in virtual education programs is in correspondence with the greater or lesser availability and presence of teachers throughout the educational process.



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## 5. Conclusions

The results of the present investigation on the incidence of personal, environmental and social interaction factors in the school dropout of the Juan Montalvo Educational Unit's Distance Learning - Virtual Baccalaureate, allowed the following conclusions to be drawn:

The social interaction factors are the ones with the greatest incidence in the intention of dropping out of the Distance - Virtual Baccalaureate. Among these are the feeling of loneliness, the lack of enthusiasm and motivation transmitted by teachers, the lack of timely feedback, and the limited availability of teachers through the educational platform. This result ratifies the findings of Rivera (2011), who concluded in his study that the most influential factors in dropout are those related to social and academic interaction. In conclusion, the H3 is accepted which states: the factors of social interaction significantly influence the intention to drop out of the Distance Learning - Virtual Baccalaureate.

On the side of personal factors, living in the rural area, being married, and having more than one child are the only factors that significantly influence the intention to drop out. However, it was determined that the other seven personal variables under study do not significantly influence the intention to drop out or abandon studies. This result corroborates the findings of Capera (2015), who found that personal variables do not have a major impact on dropout. Therefore, H1 is rejected and it is concluded that personal factors do not significantly influence the intention to drop out of the Distance Learning - Virtual Baccalaureate.

Similarly, the results show that having sufficient economic resources is the only environmental factor that significantly affects the intention to drop out. However, it was shown that the other four environmental factors under study do not significantly influence drop-out. Therefore, H2 is also rejected, and it is concluded that environmental factors do not significantly influence the intention to drop out of the Distance - Virtual Baccalaureate.

In short, in the present study it was found that social interaction factors do have a significant influence on the intention to drop out of the Virtual Distance Learning High School. In contrast, it was determined that personal and environmental factors do not have a major impact on dropout. These results are a symptom of alarm for the institution, because, according to this research, students prevent and solve problems related to their personal and environmental surroundings and prevent such factors from making it difficult for them to stay in the educational program. This makes it possible to deduce that the causes of school drop-out are due to other factors.

Finally, considering that this work was developed under Rivera's (2011) theoretical framework, and that in the present research only personal, environmental and social interaction factors were studied, it is necessary that future researches analyze the other categories of variables raised by the author, that is, the relationship between school dropout and academic and technological support factors is investigated. Thus, qualitative approaches to the realities of students, teachers, and authorities could provide evidence that would make it possible to identify other factors that influence school drop-out and that affect this educational program.



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