

Building the profile of students with the intention of dropping out of university studies*

Construyendo el perfil del alumnado con intención de abandono de los estudios universitarios

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Abstract:

The analysis of the problem of dropout from university studies is a subject of great importance and topicality owing to the repercussions it has, not only in the economic and social sphere, but also at a personal, family, institutional level, etc. The objective of this article is to define a profile for a student who intends to abandon their university studies and who, therefore, is at risk of academic dropout.

Various characteristics with a possible impact on this situation were analysed, both those of an individual, academic and socioeconomic nature and those which are personal. Specifically, we studied the variables of age, gender, how studies are financed, average university grade and order of preference of the degree course, as well as those related to academic satisfaction, adaptability skills and the student's academic engagement. The analysis

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was conducted on students at the Universidad de La Laguna (ULL) according to degree field and academic year. The results obtained show that the students with the highest risk of dropping out of the degree programme are those in their first year, mainly in the field of sciences, who have chosen the degree course they are studying that was their third choice or lower, their average university grade has been a fail, they have a low level of academic engagement and are not very satisfied with the educational process.

Keywords: university education, academic dropout, university students, adaptability, engagement, satisfaction.

Resumen:

El análisis del problema del abandono de los estudios universitarios es un tema de gran importancia y actualidad por las repercusiones que tiene no solo en el ámbito económico y social, sino, también, a nivel personal, familiar, institucional, etc. El objetivo de este artículo es definir un perfil de estudiante con intención de abandonar los estudios universitarios y, por

tanto, que está bajo riesgo de deserción académica. Se analizan diversas características con posible incidencia en esta situación, tanto de carácter individual, académico o socioeconómico como de tipo personal. En concreto, se estudian las variables de edad, sexo, forma de costear los estudios, nota promedio en la universidad, orden de elección de la titulación, así como las relacionadas con la satisfacción académica, la competencia de adaptabilidad y el compromiso académico del estudiante. El análisis se realiza en estudiantes de la Universidad de La Laguna (ULL) según rama de la titulación y curso académico. Los resultados obtenidos evidencian que los estudiantes con mayor riesgo de abandonar la titulación son aquellos que cursan el primer curso, fundamentalmente en la rama de ciencias, han elegido la titulación que cursan en tercera o siguientes opciones de preferencia, su nota promedio en la universidad ha sido de suspenso, tienen un escaso compromiso académico y están poco satisfechos con el proceso formativo.

Descriptores: educación universitaria, abandono académico, estudiantes universitarios, adaptabilidad, compromiso, satisfacción.

1. Introduction

Recently, one of the issues that higher education has most often addressed is dropout from studies (Bethencourt, et al., 2008; Himmel, 2018; Sánchez & Elías, 2017; Tinto, 1994; Torrado & Figueras, 2019). Its significance is due to the repercussions it has economically and socially (Bowen, 1997; Paulsen, 1998), individually (Cohn & Geske, 1992; Perna 2003),

and also at a family and institutional level (Bowen, 1997; González & Pedraza, 2017). In the institutional sphere, universities place increasing importance on academic dropout due to the heavy financial investment involved (González et al., 2007), but, additionally, because it is an obstacle to training competent professionals who are qualified to enter the job market and society.

If we analyse the figures provided by official sources, it is striking that in recent years the percentage of students who drop out of studying at Spanish universities has remained constant (Ministry of Universities, 2021a), with high figures compared to the goals set by the European Union and the United Nations for 2030, which recommend increasing the number of people with degrees owing to the positive effects this has on individual development and social progress, by facilitating access to the labour market (Council of the European Union, 2021; United Nations, 2015).

A detailed study by fields of knowledge of the evolution of university data in Spain reveals that the field of arts and humanities has one of the highest dropout rates, followed by engineering and architecture in third place, social sciences and legal studies in fourth, and, lastly, with a lower dropout rate, the field of health sciences (Ministry of Universities, 2021a).

In the case of the Universidad de La Laguna (ULL), the evolution of the dropout rate indicates that it has always been near the average for Spanish public universities, being among the ten universities with the highest university dropout rates (Ministry of Universities, 2021b). In fact, in recent studies conducted with students from this university, it was found that between 35.6% (Álvarez-Pérez et al., 2021) and 39.9% (López-Aguilar, et al., 2022) of the students had expressed their intention to abandon their education. This means

that these students will join the ranks of young people who face real difficulties in entering the labour market, due to their lack of preparation as a consequence of dropping out of their studies. This situation is more intense during the first years at university, as a result of the deep process of transition and change that students undergo at this time (López-Aguilar & Álvarez-Pérez, 2021; Rodríguez et al., 2018; Tuero et al., 2018; Yorke and Longden, 2008). For this reason, the research conducted has focused on the study of factors that have an impact on dropout in the initial stages of university and which may be due to influences that are personal, individual, academic, socio-economic, organisational, cultural, etc. (Álvarez-Pérez & López-Aguilar, 2017; Tinto, 1994).

2. Explanatory causes of academic dropout at university

The literature review on academic dropout at university shows that studies have principally focused on three lines of research. Firstly, the conceptual definition and theoretical delimitation of university dropout; secondly, the study of the reasons that may cause university dropout; and, lastly, the proposal of educational strategies to halt the advance of university dropout (Álvarez-Pérez & López-Aguilar, 2017). Regarding the causes that motivate university dropout, the research already conducted recognises that they are numerous, and may even be combined, depending on the characteristics of each individual and the circumstances in which they find themselves

(Álvarez-Pérez & López-Aguilar, 2017; García, 2015; Tinto, 1975).

As already indicated, the causes that explain academic dropout at university involve multiple factors. Some of these reasons relate to the relationship with the teachers (Álvarez & López, 2019), the feeling of belonging to the institution (Esteban et al., 2016), the process of adaptation to university (Esteban et al., 2016), personal expectations (Marín et al., 2000), academic proficiency (Castillo et al. 2003), curricular flexibility (Barefoot, 2004), belief in self-efficacy (Casas & Blanco, 2017), motivation to study (Sarahi et al., 2015), class attendance (Álvarez & López, 2011), effort and dedication regarding academic tasks (Belvis et al, 2009), lack of integration in the university environment (Rausch & Hamilton, 2006; García, 2015; Esteban et al., 2016) and the student's academic engagement (Álvarez-Pérez et al., 2021; López-Aguilar et al., 2022).

Analysing the individual causes in more detail, García (2015) classifies them as demographic, socio-economic and academic. This author considers that gender, the parents' educational level, economic activity, previous academic training and age are the factors that have the greatest effect on academic achievement. To a lesser extent, other factors concern residence, nationality, the student's socio-economic status and how their studies are financed, according to research analysed by the same author.

Focusing on the demographic factors, some authors have studied gender and

age as the main elements that determine the profile of the student who drops out. However, the findings of this research do not provide conclusive results in terms of considering gender or age to be particularly influential. Thus, on one hand, there are analyses which consider that women present a greater probability of dropping out of studies (Casanova et al., 2018), due to, among other causes, the gap between expectations and the outcomes attained, or analysis such as by Céspedes-López et al. (2021) whose findings were not significant as regards gender. At the same time, there are studies which consider that the greater the age, the greater the possibility of dropping out (Araque et al., 2009; Céspedes-López et al., 2021; Constante-Amores, et al., 2021; Freixa et al., 2018). There is other research, in contrast, that takes the view that it is men who spend the least time at university (Constante-Amores et al., 2021; Gairín, et al., 2014) and that the age variable is not significant to determine whether a student will drop out (Esteban et al., 2017). Although age does not appear to be relevant in explaining dropout, studies such as those by Salvador & Peiró (1986) have demonstrated the importance of the academic year in the career development of university students.

Regarding academic characteristics (average grade at university and order of preference of the degree chosen) Arias and Dehon (2013), Casanova et al. (2018), Constante-Amores et al. (2021) and Esteban et al. (2017) consider that students studying their first choice of degree are

less likely to drop out, making this order of preference the most important variable in terms of dropping out.

On the other hand, some authors associate the choice of degree with motivation and achievement to explain academic success (Rump et al., 2017). In this way, students who are not studying their first choice of degree have less motivation and/or lower levels of academic achievement, which directly affects the possibilities of dropout (Bernardo, et al., 2016; Bernardo et al., 2018; Céspedes-López et al., 2021; Freixa et al., 2018; López et al., 2020; Stinebrickner and Stinebrickner, 2012).

Mestan (2016) concludes, additionally, that more students who choose the fields of knowledge of Art and Humanities or Social Sciences and Legal Studies abandon their studies than those who choose other fields of knowledge. Similar results have been obtained by Constante-Amores et al. (2021), with the conclusion that these same students are the ones who abandon their studies the most.

As for the variables related to socio-economic aspects and basing the theoretical review on the way studies are financed, there are numerous works that have linked dropout to whether they have been awarded a grant which allows them to finance their studies, and the employment situation of the student who is studying a university degree. In the case of grants, as with the demographic characteristics, the findings of existing research are not conclusive. For

Céspedes-López et al. (2021), economic difficulties represent one of the main barriers for students, to the extent that those who receive financial help or grants have a higher probability of dropping out of their studies. In contrast, Fernández-Martín et al. (2019) obtain different results, with students with a greater possibility of dropping out being those who do not receive a grant. Along these lines, Constante-Amores et al. (2021) express their belief that having the benefit of a grant affects university dropout significantly by reducing it.

In relation to the students' employment situation, the conclusions seem to demonstrate greater similarity. García et al. (2015) associate working and studying at the same time with the possibility of abandoning university studies. This idea is also shared by Freixa et al. (2018), Montmarquette et al. (2001) and Gairín et al. (2014), as they consider those who only study are more likely to finish their studies and achieve their academic goals.

Another set of factors that may help to identify the causes that lead students to drop out of the university degree they are studying, apart from those already analysed, are those related to the students' other personal aspects that, in combination with the above-mentioned factors, may provide an even fuller profile. Focusing on these factors, in this research we analyse three of them (academic satisfaction, adaptability skills and academic engagement), as the main determinants in the processes where-

by students continue with their studies (Álvarez-Pérez et al., 2021; López-Aguilar et al., 2022). For Lent and Brown (2008), academic satisfaction is understood to be related to the well-being the student feels when performing tasks and activities in their role as a learner/student. It follows that students with high levels of academic satisfaction develop a better learning process, achieve their academic goals, have a positive perspective regarding self-efficacy, show greater self-confidence and skills for success in their studies and receive more support from society (Lent et al., 2007). Navarro et al. (2014), confirm that the students who are most engaged and involved in the achievement of their academic goals are those who have a higher level of academic satisfaction, with this satisfaction having a positive association with other variables such as social integration, persistence in studies, academic success and general satisfaction with life.

With reference to adaptability skills, Wilkins et al. (2014) argue that students with greater chances of remaining at university and being successful on their degree course are those who have developed appropriate adaptability skills. These are understood as the abilities that the student possesses to address the different tasks during their academic journey, in a suitable way, as well as for handling any unwanted personal situations.

And, finally, as far as academic engagement is concerned, Ayala and Manzano (2018) associate it with the involvement

that the student should have with their academic training. Thus, when students assume the responsibility that their studies represent, they are capable of engaging with them and they persevere, by demonstrating a will to overcome situations of conflict (Manzano, 2002).

In fact, the objective of this study is to analyse the profile of students who have expressed their intention to permanently abandon the university degree course they are studying at the ULL, by examining both their demographic, academic and socio-economic characteristics and others such as academic satisfaction, adaptability skills and academic engagement.

3. Hypotheses and methodology

Considering the theoretical models and the data from the Ministry of Universities reports that have been examined above, and with the aim of focusing this research on the determination of individual features (demographic, academic and socio-economic), as well as other personal characteristics in the profile of students who have contemplated permanently abandoning their university degree course, we propose the following hypotheses:

H1. The probability of contemplating permanently abandoning a university degree course increases in male students, in younger age groups, who are in their first year of degrees in social science and legal studies and whose studies are financed by their family, their average university grade is a fail

or a straight pass and the degree course was not their first choice.

H2. The probability of contemplating abandoning a university degree course permanently increases in students who have low levels of academic satisfaction, adaptability skills and academic engagement.

The target population is students who, at the moment of data collection, were in the first or second year of university degrees at the ULL. The data on the number of students was provided by the Gabinete de Análisis y Planificación (GAP) (Analysis and Planning Office) at the ULL, with 8,369 students being enrolled for the academic year 2020-2021.

We prepared a questionnaire containing 10 questions with multiple-choice answers that were dichotomous or used a 7-point Likert scale, the latter being applied to the questions relating to academic satisfaction, adaptability skills and academic engagement. As a basis for the construction of the scales, we used works by Lent and Brown (2008) for academic satisfaction, by Savickas and Porfeli (2012) for adaptability skills and by Schaufeli et al. (2002) for academic engagement.

The questionnaire was administered to 1,205 students but once the database had been refined (removal of duplicate cases, identification of atypical cases using the Mahalanobis distance, etc.), the answers from 1,038 students were used, providing a representative sample of the population,

with a confidence level of 99% and a sampling error of 3.75%. Different descriptive and multivariate statistical techniques were applied to the database. The program used was SPSS 21.

Based on the objective outlined above, we selected the most suitable multivariate statistical analysis. Contingency tables were constructed to separate the answers into two groups, based on the question “Have you thought, at any time, about permanently dropping out of the university degree course that you are studying?”, which has the dichotomous answer (No, Yes), with this being the variable used as a dependent variable in the subsequent analysis. The Chi-square (χ^2) statistic was applied to confirm whether there were significant differences between the answers in both groups. Following this, we conducted a Binary Logistic Regression Analysis (Cornfield et al., 1961; Walter & Duncan, 1967), to enable us to characterise the students according to the dependent variable. This type of regression is based on principles such as the odds ratio and probabilities, and allows us to verify which variables influence the probability of an individual contemplating abandoning their studies. The aim of the analysis is to make it possible to predict the behaviour of a certain variable, that is to say, it enables the estimation of the probability of an event defined by the dependent variable occurring, due to the fact that there is a range of independent variables and they are considered to be predictor or forecast variables. The variables used in the analysis and their different categories can be seen in Table 1.

TABLE 1. Classification of the questionnaire variables used in the analysis.

| | | | |
|--|--|---|---|
| Dependent | Have you thought, at any time, about permanently dropping out of the university degree course that you are studying? | 1=No 2=Yes | |
| | Age | 1=18 or 19 years old 2=20 years old or over | |
| | Gender | 1=Male 2=Female | |
| | Degree field | 1=Arts and Humanities 2=Sciences 3=Health Sciences 4=Social Sciences and Legal Studies 5=Engineering and Architecture | |
| | Year | 1=First 2=Second | |
| | Independent | Financing of studies | 1=Paid for by the family 2=Working 3=Working and with help from the family 4=Grant |
| | | Average university grade | 1=Fail 2=Pass 3=Merit 4=Distinction |
| | | Order of preference of degree choice | 1=First choice 2=Second choice 3=Third choice and lower |
| | | Academic satisfaction (overall evaluation) | 1=Low (1 ≤ evaluation < 4) 2=Medium (4 < evaluation < 6) 3=High (6 ≤ evaluation ≤ 7) |
| | | Adaptability skills (overall evaluation) | 1=Low (1 ≤ evaluation < 4) 2=Medium (4 < evaluation < 6) 3=High (6 ≤ evaluation ≤ 7) |
| Academic engagement (overall evaluation) | 1=Low (1 ≤ evaluation < 4) 2=Medium (4 < evaluation < 6) 3=High (6 ≤ evaluation ≤ 7) | | |

4. Results

Table 2 presents the results separated by the dependent variable. It can be observed that the Chi-square (χ^2) statistic presented a significance of 1% in seven of the ten variables analysed. The variables of gender and financing of studies did not prove to be significant. In principle, age could be considered to

be significant in line with recommendations by Rosnow and Rosenthal (1992). Once the dependent variable has been standardised to calculate the effect size of this variable on the dependent variable, if the T-test is applied to independent samples, the result of Cohen's *d* is lower than 0.2, which indicates that it has an insignificant effect,

as in 1988 the biostatistician Cohen suggested quantifying the effect size as small ($d = 0.2-0.3$), medium ($d = 0.5-0.8$) and large

($d = \text{over } 0,8$), approximately. Nevertheless, its importance was evaluated by introducing it into the model presented below.

TABLE 2. Contingency table.

| Variable | Categories | No | Yes | Sig. |
|--|---------------------------------------|------|------|-------|
| Age | 18 or 19 years old | 70.2 | 64.3 | 0.051 |
| | 20 years old or over | 29.8 | 35.7 | |
| Gender | Male | 31.7 | 33.8 | 0.500 |
| | Female | 68.3 | 66.2 | |
| Degree field | Arts and Humanities | 7.9 | 15.9 | 0.000 |
| | Sciences | 4.6 | 11.4 | |
| | Health Sciences | 17.7 | 13.0 | |
| | Social Sciences and Legal Studies | 63.3 | 51.1 | |
| | Engineering and Architecture | 6.4 | 8.6 | |
| Year | First | 55.5 | 43.5 | 0.000 |
| | Second | 44.5 | 56.5 | |
| Financing of studies | Paid for by the family | 35.8 | 38.1 | 0.761 |
| | Working | 3.4 | 3.0 | |
| | Working and with help from the family | 3.0 | 2.2 | |
| | Grant | 57.8 | 56.8 | |
| Average university grade | Fail | 3.4 | 9.5 | 0.000 |
| | Pass | 34.7 | 44.3 | |
| | Merit | 58.4 | 43.8 | |
| | Distinction | 3.4 | 2.4 | |
| Order of preference of degree choice | First choice | 76.8 | 66.5 | 0.000 |
| | Second choice | 18.1 | 22.2 | |
| | Third and lower choices | 5.1 | 11.4 | |
| Academic satisfaction (overall evaluation) | Low | 18.6 | 50.5 | 0.000 |
| | Medium | 62.6 | 45.1 | |
| | High | 18.9 | 4.3 | |
| Adaptability skills (overall evaluation) | Low | 6.7 | 19.2 | 0.000 |
| | Medium | 60.5 | 62.2 | |
| | High | 32.8 | 18.6 | |
| Academic engagement (overall evaluation) | Low | 21.0 | 52.7 | 0.000 |
| | Medium | 61.4 | 42.4 | |
| | High | 17.7 | 4.9 | |

Subsequently, a logistic regression model was constructed to express the probability of an event occurring, in this case the dependent variable $Y =$ “Have you thought, at any time, about permanently dropping out of the university degree course that you are studying?” This model was aimed at evaluating the probability that this dichotomous variable, representing, on a logarithmic scale, the difference between the probability of alternative 1 (1=Yes) and its opposite 0 (0=No) being associated with the predictor or independent variables which were significant in the Chi-square (χ^2) test.

The method for selecting variables for the model was “introduce” because this enabled the researcher to decide which variables should be introduced into or extracted from the model according to the results. The significant variables were introduced into the model, including the age variable, and another analysis was conducted without the age variable. The results indicate that the model that includes the age variable in the logistic regression analysis reduces its predictive power. As an example, it is worth highlighting that the part of the variance of the dependent variable that is explained by the model containing the age variable decreases substantially compared to the results of the model that does not contain this variable (0.122 Cox and Snell’s R-squared and 0.168 Nagelkerke’s R-squared compared to 0.205 Cox and Snell’s R-squared and 0.281 Nagelkerke’s R-squared). The same occurs with the percentage of classification for the cases (64.3% compared to 72.4% for the model presented). Therefore, we decid-

ed to eliminate it and work with the other significant variables.

Subsequently, we summarised the model’s goodness of fit using the findings of the different tests applied to measure the independent variables with the dependent variable.

1. The significance of the Chi-square of the model in the omnibus test. If the significance is lower than 0.05, it indicates that the model helps to explain the event, that is to say, the independent variables explain the dependent variable. We contrasted the combined significance of the variables included in the model. In this model the result was significant (0.000).
2. Cox and Snell’s R-squared, and Nagelkerke’s R-squared. They indicate the part of the variance of the dependent variable that is explained by the model. In this case, the results vary between 20.5% (0.205 Cox and Snell’s R-squared) and 28.1% (0.281 Nagelkerke’s R-squared).
3. The Hosmer-Lemeshow test. This should not be significant so that there are no differences between the observed values and the expected values. In the case of this model, it was not significant (0.937).
4. Overall percent correctly classified. This indicates the number of cases that the model is able to

predict correctly. On the basis of the regression equation and the observed data, a prediction was made about the value of the dependent variable (predicted value). This prediction is compared with the observed value. If it is correct, the case is correctly classified. If it is not correct, the case is not correctly classified. The more cases that are correctly classified, that is to say, the predicted value coincides with the observed value, then the model explains; therefore, the independent variables are good predictors of the event or dependent variable. In this case, the model correctly classified 72.4% of the cases and, when they were separated, 83.8% of those who have not considered dropout and 51.9% of those who have considered it.

There is an explanation below of the results of the model that is presented in Table 3. The reference category is a student of Engineering and Architecture, in their second year, with an average university grade of Distinction, who is studying a degree that was their third choice or lower, and evaluates their levels of academic satisfaction, adaptability skills and academic engagement as high.

To perform the analysis according to this reference category, consideration should be given to, on one hand, the significance of B as a contrast for individual significance — if B is less than 0.05, it is significant — and, on the other, the sign

of B, which indicates the effect of each variable on the dependent variable. Exp (B) — the exponential value of B — represents the odds ratio and these values can be compared to each other to find which variable has the most influence or most closely associated. When Exp (B) is greater than 1, it shows that an increase in the independent variable increases the odds ratio of the event occurring; when Exp (B) is less than 1, this indicates that an increase in the independent variable reduces the odds ratio of an event occurring. To compare the exponential values of B with each other, those that are less than 1 should be transformed to its inverse or reciprocal.

The results of the model are interpreted below, excluding adaptability skills as they did not prove to be significant.

Fields. The positive and negative effects of the types of fields on the event (having considered dropping out of university studies) were observed. Specifically, the results were as follows:

- Arts and humanities: The value of B was positive and the result of Exp (B), 1.575, indicates that a student in this field is 1.5 times more likely to consider dropping out than a student of Engineering or Architecture.
- Sciences: The value of B was also positive and the result of Exp (B), 2.837, indicates that a student in this field is 2.8 times more likely to consider dropping out than a student of Engineering or Architecture.

TABLE 3. Variables in the equation.

| | Field | B | S.E. | Wald | df | Sig. | Exp(B) | I.C. 95.0 % for EXP(B) | |
|-----------|-----------------------------------|--------|------|--------|----|---------|--------|------------------------|-------|
| | | | | | | | | Lower | Upper |
| Step 1(a) | | | | 32.642 | 4 | .000*** | | | |
| | Arts and Humanities | .454 | .341 | 1.775 | 1 | .183 | 1.575 | .807 | 3.074 |
| | Sciences | 1.043 | .371 | 7.915 | 1 | .005** | 2.837 | 1.372 | 5.866 |
| | Health Sciences | -.269 | .323 | .694 | 1 | .405 | .764 | .406 | 1.439 |
| | Social Sciences and Legal Studies | -.379 | .282 | 1.801 | 1 | .180 | .684 | .393 | 1.191 |
| | First year | -.557 | .153 | 13.208 | 1 | .000*** | .573 | .424 | .774 |
| | Average grade | | | 8.105 | 3 | .044** | | | |
| | Fail | 1.034 | .542 | 3.636 | 1 | .057* | 2.813 | .972 | 8.146 |
| | Pass | .574 | .454 | 1.596 | 1 | .206 | 1.776 | .729 | 4.326 |
| | Merit | .273 | .452 | .366 | 1 | .545 | 1.314 | .542 | 3.185 |
| | Order of preference | | | 15.327 | 2 | .000*** | | | |
| | First choice | -.972 | .275 | 12.474 | 1 | .000*** | .378 | .221 | .649 |
| | Second choice | -.546 | .305 | 3.200 | 1 | .074* | .580 | .319 | 1.054 |
| | Satisfaction | | | 33.705 | 2 | .000*** | | | |
| | Low | 1.635 | .338 | 23.438 | 1 | .000*** | 5.128 | 2.645 | 9.938 |
| | Medium | .745 | .308 | 5,860 | 1 | .015** | 2.107 | 1.152 | 3.853 |
| | Adaptabilidad | | | .750 | 2 | .687 | | | |
| | Baja | -.161 | .298 | .291 | 1 | .590 | .851 | .474 | 1.528 |
| | Media | -.172 | .199 | .748 | 1 | .387 | .842 | .570 | 1.244 |
| | Engagement | | | 28.086 | 2 | .000*** | | | |
| | Low | 1.447 | .337 | 18.416 | 1 | .000*** | 4.249 | 2.195 | 8.228 |
| | Medium | .600 | .305 | 3.870 | 1 | .049** | 1.822 | 1.002 | 3.314 |
| | Constant | -1.495 | .673 | 4.944 | 1 | .026** | .224 | | |

Note: Significant coefficients: *10%; ** 5%; ***1%; B: parameter vectors for estimation; S.E.: standard error for B; CI: confidence interval.

- Health sciences: With a negative value for B, the result of Exp (B), 1.309, indicates that a student in this field is less likely to consider abandoning their university studies than a student of Engineering or Architecture, specifically, around 1.3 times less likely.
- Social sciences and legal studies: B has a negative value and the result of Exp (B), 1.462, indicates that a student in this field is less likely to consider abandoning their university studies than a student of Engineering or Architecture, namely, around 1.4 times less likely.
- Merit. A positive value for B and the result of Exp (B), 1.314, indicate that a student with the grade merit is around 1.3 times more likely to consider dropping out than a student with a distinction.

Order of preference of degree choice.

The results for B were all negative. After a more detailed analysis, it was observed that:

Year. Based on the negative value of B and the result of Exp (B), 1.745, we can say that a student in their second year is 1.7 times less likely to consider dropping out than a student in their first year.

Average university grade. The results were all positive, specifically, as follows:

- First choice: With B having a negative value and taking into account the result of Exp (B), 2.646, we can conclude that a student who has indicated the degree as their first choice is 2.6 times less likely to consider dropping out than a student who has indicated their third or lower choice.
- Second choice. With a negative value for B and according to the result of Exp (B), 1.724, a student who has indicated their second choice is 1.7 times less likely to consider dropping out than a student who has indicated their third or lower choice.
- Fail. With a positive value for B and according to the result of Exp (B), 2.813, a student with a fail grade is 2.8 times more likely to consider dropping out than a student with a distinction.
- Pass. B is positive and the result of Exp (B), 1.776, indicates that a student with a pass grade is around 1.8 times more likely to consider dropping out than a student with a distinction.
- Low. With B having a positive value and taking into account the result of Exp (B), 5.128, a student who has evaluated their level of academic satisfaction as low is 5.1 times more likely to consider dropping out than a

Academic satisfaction. The results were positive. After a more detailed analysis of the evaluation of the level of satisfaction, it was observed that:

student who has evaluated their level as high.

- Medium. With a positive value for B and according to the result of Exp (B), 2.107, a student who indicated their evaluation as medium is 2.7 times more likely to consider dropping out than a student who has evaluated their level as high.

Academic engagement. With positive results for B, it was observed that:

- Low. With B having a positive value and taking into account the result of Exp (B), 4.249, we can conclude that a student who has evaluated their level of academic engagement as low is 4.2 times more likely to consider dropping out than a student who has evaluated their level as high.
- Medium. With a positive value for B and a result for Exp (B) of 1.822, a student who gives an evaluation of medium is 1.8 times more likely to consider dropping out than a student who has indicated a high level of academic engagement.

5. Discussion and conclusions

The main purpose of this study was to determine the characteristics of university students with a high risk of dropping out. This is important input, which should be used for the design of institutional recommendations on education, of a preventative nature, which can help to address this issue. In this re-

search, not only have students' individual characteristics been considered, in keeping with the work by García (2015), but their other personal characteristics have also been examined, providing, as a new development, fuller results concerning the profile of this type of students.

The findings of this work demonstrate that both the first and second hypotheses have been partially confirmed. Focusing, first of all, on the individual characteristics, the demographic variables did not prove to be significant in differentiating the students who drop out from those who do not. Therefore, this coincides with the work by Céspedes-López et al. (2021) and Esteban et al. (2017), as they considered that gender, according to the former, and age, according to the latter, are not influential when applying measures to reduce dropout that are specific to the students' gender and age.

It is the same case for the socio-economic variable relating to the way studies are financed, whose effects were not representative in determining the profile of students either. Whether the studies are financed by the family or with income earned through working or a grant, this does not contribute to the definition of the particularity of academic dropout.

In terms of the academic variables and in relation to the degree course being the first choice or another option, the results obtained in this work are

consistent with the conclusions reached by Casanova et al. (2018), Arias and Dehon (2013), Constante-Amores et al. (2021) and Esteban et al. (2017), in considering that this is essential in enabling students to reach greater academic achievement through being motivated by seeing their expectations fulfilled as regards studying what they want right from the beginning of their career development at university. The further away they are from their first choice, the lower their level of satisfaction will be with the studies they are pursuing, which may entail lower engagement with their educational process and poorer academic outcomes, leading them to consider abandoning their studies. In fact, the findings obtained in this research reveal that students with an average university grade of fail or a straight pass are those who are more likely to consider dropping out compared to those who have achieved a distinction.

Additionally, it should be noted that the student's academic year is also important in the analysis of the causes of university dropout. The results obtained suggest that completing the first year is generally decisive in there being a higher possibility of remaining on the degree course, which is why it is necessary to specifically address this first stage of university integration, as this is the time when the student may experience greater stress, uncertainty, lack of motivation, etc.

As for the field of knowledge with the highest incidence of university

dropout, the conclusions do not exactly coincide with those reached by either Mestan (2016) or Constante-Amores et al. (2021), who suggest that it is the fields of Arts and Humanities, and Social Sciences and Legal Studies which have the highest dropout rate. In the case of this study, the student with the highest probability of considering dropping out is in the field of sciences, followed by arts and humanities, at the opposite end of the scale to the field of health sciences.

In summary, it can be said that the probability of contemplating abandoning a university degree course permanently does not increase in male students, from younger age groups, who are studying the first year of degrees in social science and legal studies, with financing for studies coming from their family. However, it is true that the circumstances of having an average university grade of a fail or straight pass, and the not studying their first choice of degree course, both have a substantial influence on the achievement of the student's academic goal of graduating, mainly as a result of the level of motivation generated by all of the foregoing factors.

Secondly, in terms of the other personal aspects of academic satisfaction and academic engagement that define the additional characteristics of students that drop out, and without including the variable related to adaptability skills, as this did not prove to be significant in our case, this research confirms

that students who are more engaged with their educational process, and who feel greater satisfaction with the course they are studying, are the least likely to consider abandoning their university studies, thereby confirming the arguments presented by Lent et al. (2007), Navarro et al. (2014), Wilkins et al. (2014), and Ayala and Manzano (2018). The relationship that exists between these two elements is itself, moreover, a cause of academic success since students who are generally more satisfied with the course they are studying are more motivated to engage with their education, thereby attaining higher academic achievement and, therefore, being more willing to strive for the proposed goal of reaching graduation.

Ultimately, in conclusion, the profile of the student with the highest probability of dropping out of studies is one who is in the first year, mainly in the field of sciences, is studying their third choice or lower, has had an average university grade of a fail, has little academic engagement and has a low level of satisfaction when performing activities as a student.

Furthermore, the results obtained demonstrate that the profile of students who drop out is not influenced by the characteristics relating to gender, age and the financing of studies, as well as having developed adaptability skills

to address different academic tasks satisfactorily, define their path according to their future goals, and plan their career and take good decisions.

The design of university educational policies focusing on the improvement of the outcomes of students' academic success should take measures into account that are mainly aimed at the personal and individual aspects that allow students to cope with the period of transition to university studies.

For the university, enabling the student to attain a good level of academic satisfaction and engagement with their studies will help to further motivate these institutions to achieve good academic results. If, in addition, students study their first choice of degree course, they will be at a lower risk of abandoning their studies.

The findings of this study have limited generalisability (obtained at the Universidad de La Laguna), although they show a high degree of representativeness. Based on these results, a publicly-funded R&D&i research project is in development, with five national universities participating (Zaragoza, Castilla la Mancha, Huelva, Santiago de Compostela and La Laguna), aimed at conducting further examination of the variables associated with academic dropout.

Annex 1. Questionnaire on the intention of dropping out of university studies

Questionnaire on the intention of dropping out of university studies

Dropping out of studies is one of the most worrying problems in education these days and for this reason a group of teachers at the Universidad de La Laguna are conducting a study to analyse the factors underlying this issue. This is why we are contacting you, to request that you fill in this short online questionnaire. We kindly ask you to answer honestly. The answers collected here will be completely anonymous and confidential.

Thank for your collaboration.

IDENTIFICATION DATA

Age: _____

Gender: Male | Female

Degree course you are currently studying: _____

Highest academic year that you are studying:

First | Second | Third | Fourth

How are you financing your studies?

With a grant | Working | My family are paying | Working and with help from the family | Others (please specify)

Have you thought, at any time, about permanently dropping out of the university degree course that you are studying?

Yes | No

What is your average grade to date in your university studies?

- Fail (4.9 or less) | Pass (between 5 and 6.9) | Merit (between 7 and 8.9)
 Distinction (between 9 and 10) | Outstanding

In your order of preference when choosing your university course, in what position was the degree you are studying?

- First choice | Second choice | Third choice | Fourth choice | Fifth choice

ACADEMIC SATISFACTION

I am satisfied with...(1 not at all satisfied; 7 completely satisfied)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| The relationship I have with the teachers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The relationship I have with my classmates. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The methodology used in class. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The topics that are taught in class. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The degree course topics are in line with those in my profession. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The systems of assessment used by the teachers in the different subjects. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The services, support and help that the university and my Faculty/School offer me. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The decision to study this degree course. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The educational environment on the degree course. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I enjoy studying the degree course for which I have enrolled. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The topics addressed on the degree course. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The motivation that I have in relation to the degree course that I am studying. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The degree course that I am studying meets my expectations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

ADAPTABILITY SKILLS

Indicate to what extent you agree with the following statements related to your future academic and professional development (1 completely disagree; 7 completely agree)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| I think about what my future as a worker will be like. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The decisions that I take today may affect and determine my future. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am preparing myself to face my future employment. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I know what decisions I have to take to achieve my professional goals. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I plan how to achieve my objectives in the short, medium and long term. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I think I am a competent person who can perform any kind of task. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am optimistic about life and the possibilities of finding a job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| When I take decisions, I weigh up what my own interests and hopes are. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I look for information about the situation in the labour market. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Before taking a decision, I analyse the different options and alternatives that I have. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am eager to discover new opportunities in life. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I consider that when I perform tasks I do so efficiently. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I take care to do all types of activity correctly. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I easily overcome problems that occur on a daily basis. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I have acquired suitable skills and knowledge to solve any problems that I may encounter in the professional world. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I know how to adapt to the requirements of the world of employment. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I have acquired suitable skills to interact with other people in the world of work. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

ACADEMIC ENGAGEMENT

Indicate to what extent you agree with the following statements (1 completely disagree; 7 completely agree)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| When I do classwork, I feel strong and full of energy. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| When I get up in the morning I want to go to class, start studying or do classwork. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I can spend long periods of time studying continuously (without getting tired). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Despite the difficulties I may encounter, I consider myself to be a constant, determined person when it comes to classwork. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Even if I am not feeling well, I still do my classwork. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The course that I am studying is meaningful to me. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am enthusiastic about the university studies that am pursuing. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The course that I am studying motivates me to do new things related to the training I am undertaking. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am proud to be studying this degree course. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Pursuing these university studies is a major challenge for me. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel strong and enthusiastic when I am doing activities in class. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Times flies when I am doing classwork. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I forget about everything around me when I am concentrating on my studies. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel happy when I am doing classwork. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am engaged and absorbed by the studies I am following. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| When I do classwork, I get so involved that I lose track of time. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I find it difficult to stop doing classwork. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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