



Research article



Analysis of the university experience of undergraduate students of Education degrees

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ABSTRACT

The evaluation of the university experience of students is an increasingly frequent field of analysis among the academic community, as they represent one of the most important groups in universities and it is essential to know their opinion and satisfaction with the different services and resources that the university institution makes available to them. In this sense, the two objectives of the study were the following: 1) To analyse the undergraduate university experience of the different groups of students (graduates, students, drop-outs). 2) To identify which aspects of the academic training received predict each of the student groups. To this end, a study was carried out specifically aimed at undergraduate education students at the University of Granada (Spain), distinguishing between graduates, students, and those who had dropped out of their studies. A total of 292 students participated (82 female and 210 male), of whom 123 were graduates, 98 were still students and 71 were drop-outs. After the application of three questionnaires, it was found that the three aforementioned groups of participants coincided in particularly valuing characteristic dimensions of the formal teaching-learning scenario in the university experience. In addition, the linear regression analysis carried out identified the personalised attention factor as having the highest predictive value as regards student type. Thus, the results of the study point to an assessment of academic training focused on the need on the part of all three groups of participants for teacher support and individualised guidance. The study may be useful in providing universities with new data to help improve the teaching performance of Education degree teaching staff concerning students; for example, by encouraging their participation in tutorial action programmes.

1. Introduction

The concept of educational quality advocated by higher education institutions in Europe adopts a multi-paradigmatic and

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multidimensional perspective [1], although according to Sahek and Nasri [2] it is characterised by the absence of criteria associated with equity. With regard to the dimensions to be taken into account in the concept of educational quality, particular attention may be drawn to the dimensions of resources, the achievement of objectives and user satisfaction, with commitment to excellence and organisational innovation being of less significance [3].

However, quality management in a university depends not only on the institution itself, but also on a broad framework in which social and organisational aspects, organisations, employees, users and direct and indirect recipients of the benefits and transfer of university quality to society converge [4,5]. In this sense, a great deal of research has been carried out in relation to the assessment and satisfaction of students and graduates with the quality of their university studies, identifying the aspects that favour or hinder the achievement of their objectives at a professional and personal level [6–8]. Studies have focused on various areas of knowledge, such as medicine [9,10], university engineering studies [11] and also on the training of future teachers [12]. The results obtained in these studies show that the formative experience of students in their interaction with the university can be explained through various factors, such as academic integration, the progress of the feeling of belonging to the university institution, and vocation. Similarly, it is observed that most of these studies on student and alumni satisfaction present an evaluation of the degree of satisfaction with the services and resources offered by the institution itself, both material and human, apart from those relating to training [13].

In the field of future teacher training, research has focused on questions about the assessment of teaching practices throughout training [12,14]; the type of learning strategies of students [15,16], and their satisfaction with tutorial attention [17], but not on the analysis of the global dimension of satisfaction with the degree and professional insertion. Furthermore, there have been studies on graduates who carry out their teaching activity [18], but focused on determining the assessment of their activity according to the type of work centre, rather than in relation to the quality of their university and training experience. Therefore, it is worth noting that the general satisfaction of students and graduates with different studies at higher education institutions has been analysed [9–11]; however, there is less research focused on students and graduates of early childhood and primary education teacher training degrees [19].

In this line, attention may be drawn, with regard to graduation rates in Spain, that 31.8 % of under-30s reach university degree level, in line with the Organisation for Economic Co-operation and Development average of 30.8 % [20]. In terms of performance, 49 % of Spanish students graduate within the theoretical duration of their degree studies, and 80 % of those who enter graduate, both of which are within the average for a group of developed countries [21]. However, figures for Spain indicate that 33 % of university students end up dropping out [22]. This percentage is far from the target proposed by the European Council for 2020 [23], which implies reducing dropout rates in Spain to 15 %.

Failure and dropout rates are an indicator of university quality, and it is noteworthy that the most developed countries have lower dropout rates and higher levels of inclusion [24]. Furthermore, the population of students who fail to complete university studies, taking into account the different groups established in terms of the various profiles [25], must be taken into account when analysing the perception and satisfaction of higher education students in their formative stage. It is important to determine the main reasons and circumstances that lead a student to drop out [26], as this type of approach is highly valuable for identifying dropout causes and, consequently, for proposing improvements in training programmes and the development thereof [25].

2. Statement of the problem

According to university experience research, in addition to the social and academic integration experienced by students, classmates and teachers, these are essential variables to consider for achieving an adequate adaptation of students, when entering and remaining at university [27–29]. Therefore, the primary aim of this study is to convey our findings concerning the experiences of undergraduate students pursuing Education degrees for them to be communicated and used by the appropriate academic field.

Most of the studies on retention in university careers are consistent with quantitative methodology [30,31] and also with qualitative methodology [27]. A clear example of how the university experience affects dropout rates occurred during the COVID-19 pandemic and the effect of it on the educational sphere in general, where students have been influenced by this drastic change of course that has occurred in higher education. Faced with this peculiar situation, it has become clear how social and family conditions, which are not always favourable, the lack of resources and the distance imposed by the state of alarm measures have led students, on many occasions, to be subjected to pressure that has put their continuity in their studies at risk [32].

University dropout, however, is a phenomenon characterised by its complexity [33] and multi-causality [34]. According to Constante-Amores et al. [35], the profile of students who drop out is that of part-time students, of advanced age, with a low university entrance qualification and from the following areas of knowledge: Sciences, Arts and Humanities, Engineering and Architecture, and Social and Legal Sciences. They also highlight the relevance of variables prior to university entrance, and therefore support the development of a preventive and diagnostic approach for reducing this problem.

Other authors point to the important relationship between university failure and dropout with economic situation, motivation, health status and participation in university life [36]. Álvarez [37], through a bibliometric study, identifies that academic failure, learning methodologies and the impact of academic-personal variables (motivation, commitment, performance and persistence) are behind university dropout, highlighting school failure in the basic stages as identified in other studies [26,38]. It should be noted that there are few works that analyse institutional factors, alluding to the resources available to students or the quality of these [39].

For all these reasons, it is necessary to analyse the undergraduate university experience, specifically in regards to the Bachelor's Degree in Education, taking into account students, graduates and also the student population that has abandoned their studies, with the aim of identifying which aspects of the assessment of academic training define them. A relevant aspect of this paper is that it analyses these three groups of students, since studies normally focus on one of them. In this way, the data obtained can help to prevent

situations of dropout risk in the future, and provide information that can be used to improve the educational quality of Education Degree curricula. The study was guided by the following objectives:

- To analyse the undergraduate university experience of the different groups of students (graduates, students, drop-outs).
- To identify which aspects of the academic training received predict each of the student groups indicated.

In this sense, two hypotheses were identified. In the first place, it is expected that there will be differences in the university experience undergone between the groups of students. In this regard, students who drop out are expected to have a lower assessment than other groups of students. Secondly, that an adequate climate in the classroom and good communication with the teaching staff will predict the group of students to which one belongs to a greater extent than other aspects evaluated.

3. Materials and methods

3.1. Participants

A total of 292 students from a Spanish university (the University of Granada, Faculty of Education and Sports Sciences in Melilla) participated in the study, of whom 123 were graduates, 98 were studying for a degree and 71 had dropped out before completing their studies. Table 1 shows their main characteristics in terms of gender, age and cultural group.

Table 2 shows the descriptive statistics related to the route to university, the degree course taken, the Primary Education degree taken, where applicable, as well as the year in which the students are in the degree course or in which they dropped out.

3.2. Instruments

Three questionnaires were designed for students - graduates, undergraduates and dropouts. This took into account previous instruments and studies [40–42].

The questionnaires were structured into the following sections: socio-demographic data (gender, age, cultural group, etc.) and academic data (route of access to undergraduate studies, undergraduate degree, etc.); Block I, undergraduate university experience; Block II, postgraduate university experience; Block III, work experience; Block IV, suitability of work for studies undertaken; and Block V, probability of studying same degree. The types of responses offered were 4-point Likert-type responses, dichotomous responses (Yes or No), multiple-choice responses, as well as some open-ended responses.

The content was validated using the expert judgement technique [43]. Seven university researchers participated and inter-judge concordance was established. Reliability, calculated using Cronbach's alpha internal consistency index, was 0.78, 0.75 and 0.72 for each of the three questionnaires. Given that the recommended reliability is at least 0.70 [44], it is considered adequate.

This study is based on the first content block of the questionnaire, i.e. undergraduate university experience according to student group (graduates, students, drop-outs). In this respect, the following questions were analysed: main reason for choosing degree; assessment of academic training received during degree studies; level of adequacy of infrastructure, services and resources available to students; reasons for remaining in degree/leaving degree; and, lastly, which aspects of academic training predict student groups, i.e. graduates, students and those who have left their studies.

3.3. Procedure

A request was made to the General Secretary's Office of the participating university for the database encompassing the last 8 years of students of the Bachelor's Degrees in Early Childhood Education, Primary Education and Social Education, in order to have this information available. Likewise, two procedures were used to collect information (one on-line and the other face-to-face). On the one hand, three Google Docs templates were created, one for each student questionnaire, and links were sent by e-mail to the list of all students. On the other hand, the questionnaires were administered in person, with two collaborators who administered the corresponding questionnaire in each case, both in the classroom and in the students' homes.

Table 1
Description of the participating students according to socio-demographic variables.

Variables		Graduates	Students	Dropouts
Gender	Male	33 (26.83 %)	19 (19.39 %)	30 (42.25 %)
	Female	90 (73.17 %)	79 (80.61 %)	41 (57.75 %)
Age	Minimum-Maximum	24–29	19–59	20–50
	Mean (SD)	26.50 (1.36)	25.11 (5.92)	26.13 (4.79)
Cultural group	European	97 (78.86 %)	65 (66.33 %)	51 (71.83 %)
	Amazight	26 (21.14 %)	32 (32.65 %)	18 (25.35 %)
	Sephardic	0 (0.00 %)	1 (1.02 %)	1 (1.41 %)
	Other	0 (0.00 %)	0 (0.00 %)	1 (1.41 %)
	Other	20 (16.26 %)	9 (9.18 %)	5 (7.04 %)

Table 2
Student academic data.

Variables		Graduates	Students	Dropouts
Degree pathway	High School (Entrance Exams)	112 (91.06 %)	76 (77.55 %)	57 (80.28 %)
	From University Orientation Course and other old plans	0 (0.00 %)	1 (1.02 %)	0 (0.00 %)
	Entrance exams for students over 25 years of age	0 (0.00 %)	1 (1.02 %)	1 (1.41 %)
	From university degrees	0 (0.00 %)	2 (2.04 %)	0 (0.00 %)
	From foreign education systems	0 (0.00 %)	1 (1.02 %)	0 (0.00 %)
	From a Higher Level Training Cycle	11 (8.94 %)	17 (18.37 %)	13 (18.31)
Bachelor's degree	Early Childhood Education	30 (24.39 %)	22 (22.45 %)	19 (26.76 %)
	Primary Education	57 (46.34 %)	42 (42.86 %)	35 (49.30 %)
	Social Education	36 (29.27 %)	34 (34.69 %)	17 (23.94 %)
Type of degree in Primary Education	Hearing and Language	4 (7.02 %)	3 (11.11 %)	3 (21.43 %)
	Therapeutic Pedagogy	17 (29.82 %)	11 (40.74 %)	5 (35.71 %)
	Foreign Language	19 (33.33 %)	7 (25.93 %)	2 (14.29 %)
	Musical Education	8 (14.04 %)	3 (11.11 %)	1 (7.14 %)
	Physical Education	9 (15.79 %)	3 (11.11 %)	3 (21.43 %)
Course	1.º	–	23 (23.47 %)	43 (60.56 %)
	2.º	–	27 (27.55 %)	13 (18.31 %)
	3.º	–	25 (25.51 %)	6 (8.45 %)
	4.º	–	23 (23.47 %)	9 (12.68 %)

Note. The percentage of the Type of degree in Primary Education variable has been calculated according to the number of responses obtained.

3.4. Data analysis

Data were analysed with the statistical software IBM SPSS Statistics version 25.

Firstly, the normality of the data was determined in the case of the questionnaires for students and employers using the Kolmogorov-Smirnov test. Significance values of $p < 0.05$ were obtained, so non-parametric tests were considered for the statistical analysis [45].

Secondly, the Kruskal-Wallis H test for K independent samples was used for data analysis when analysing responses according to student group (graduate, student and dropout); the Mann-Whitney U test for 2 independent samples when analysing responses from two groups of students (e.g. graduate versus student); and the Friedman's K related samples test when analysing different responses from the same sector (e.g. dropout students).

Thirdly, a factor analysis was implemented, using the extraction method of principal component analysis and Varimax rotation, to determine into which factors the assessment of educational attainment was grouped. A linear regression analysis was then implemented in which the dependent variable was the group or type of student body and the predictor variables were the factors resulting from the factor analysis.

4. Results

In response to the first study question, distinct aspects of the undergraduate university experience are examined by student group. The quantitative analyses reveal that several student-level variables are associated with: 1. Reason for choosing degree (see Table 3), including tradition/family recommendation, vocation, etc.; 2. Evaluation of academic training received during undergraduate studies, including diverse aspects of degree (see Table 4); 3. Level of adequacy of infrastructure, services and resources available to students, including Infrastructure, services and resources (see Table 5); 4. Reasons for remaining in degree, including different reasons for staying (see Table 6); and finally 5. Reasons for dropping out of degree, including numerous reasons for dropping out (see Table 7).

All of the results are displayed as coefficients and odds ratio ($F = 12.295$, $p = 0.000$). Specifically, all else being equal, males were more likely than females to indicate graduate school plans, and those who gained admission through national entry examinations were more likely to pursue advanced degrees than those through recommendations.

Table 3
Main reason for choosing degree.

Reasons for degree choice	Graduates	Students	Dropouts	Chi2	p
Tradition/family recommendation	33.8 %	5.1 %	1.4 %	41.259***	0.000
Vocation	88.7 %	63.3 %	53.5 %	27.238***	0.000
Recommendation of others	16.4 %	5.1 %	22.5 %	11.280**	0.004
Because of the impossibility of choosing another degree due to my university entrance exams	10.9 %	3.1 %	0.0 %	10.382**	0.006
Because of its professional opportunities	31.0 %	11.2 %	11.3 %	13.701**	0.001
Because my family could not afford to pay for my studies outside of my home city	11.1 %	4.1 %	0.0 %	9.248*	0.010
Because I could not go to study in a different city	8.1 %	3.1 %	12.7 %	5.620	0.060
Other	1.7 %	5.1 %	1.4 %	2.383	0.304

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Table 4
Evaluation of academic training received during undergraduate studies.

Aspects of degree	Graduates		Students		Dropouts		Chi2	p
	M	DT	M	DT	M	DT		
Academic counselling and guidance, in general	2.78	0.67	2.73	0.84	2.58	0.80	4.171	0.124
Study plan	2.82	0.70	2.63	0.76	2.51	0.67	10.781**	0.005
Theoretical training	2.87	0.68	2.77	0.78	2.65	0.66	5.604	0.061
Practical training	2.81	0.78	2.54	0.95	2.46	0.79	11.371**	0.003
Mastery of content taught by teaching staff	2.94	0.80	2.87	0.78	2.86	0.68	1.003	0.605
Development of skills and competences	2.98	0.80	2.92	0.73	2.69	0.73	7.325*	0.026
Teaching methodologies and activities developed	2.96	0.81	2.73	0.79	2.53	0.71	15.742***	0.000
Periodic evaluation of student work	2.98	0.84	2.75	0.93	2.61	0.76	8.860*	0.012
Evaluation criteria and instruments	2.94	0.83	2.78	0.84	2.63	0.74	8.078*	0.018
Quality of teaching, in general	2.88	0.81	2.79	0.73	2.87	0.65	0.983	0.612
Spaces (classrooms, seminars, laboratories, etc.) for development of classes.	2.90	0.83	2.39	0.81	2.74	0.79	18.580***	0.000
Technological resources for teaching (audio-visual, multimedia, etc.)	2.90	0.83	2.33	0.88	2.41	0.87	26.197***	0.000
Offer of courses and areas of specialisation	2.61	0.78	2.57	0.84	2.47	0.82	1.198	0.383
Communication with teaching staff in classroom	2.76	0.76	3.06	0.73	2.93	0.62	10.320**	0.006
Level of academic demand	2.84	0.73	2.79	0.71	2.87	0.67	0.557	0.757
Teacher attention outside classroom (e.g. in tutorials).	2.86	0.70	3.06	0.81	2.89	0.73	5.870	0.053
Climate generated with classmates	2.83	0.87	2.96	0.92	3.10	0.70	3.940	0.139
Work placements outside university classroom (in schools or other types of educational and social institutions, for example).	2.90	0.78	3.00	0.96	2.36	0.98	19.286***	0.000
Preparation for future professional insertion	2.81	0.83	2.45	0.97	2.54	0.80	9.978**	0.007

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Note: M = Mean, SD = Standard deviation.

Table 5
Level of adequacy of infrastructure, services and resources available to students.

Infrastructure, services and resources	Graduates		Students		Dropouts		Chi2	p
	M	DT	M	DT	M	DT		
Infrastructure and services of the University Campus, in general.	2.77	0.64	2.23	0.78	2.44	0.81	30.012***	0.000
Infrastructure and services of Faculty, in particular	2.77	0.69	2.26	0.78	2.40	0.73	27.250***	0.000
University Campus Library	2.77	0.74	2.47	0.93	2.51	0.79	7.923*	0.019
The University's electronic library	2.72	0.80	2.56	0.79	2.49	0.88	4.195	0.123
Administration Service located on Campus (registration procedures, alteration of registration, academic transcript request, etc.)	2.79	0.85	3.15	0.75	2.86	0.70	12.405**	0.002
E-administration (identified access, electronic office, etc.)	2.72	0.85	3.19	0.72	2.80	0.75	19.380***	0.000
University e-mail	2.80	0.85	3.22	0.78	2.87	0.70	16.337***	0.000
University Smart Card (TUI)	2.72	0.94	2.90	0.96	2.57	0.90	5.234	0.073
Technical equipment (computers, Internet, etc.)	2.67	0.93	2.37	0.91	2.43	0.80	7.117*	0.028
Photocopier	2.78	0.84	3.02	0.89	2.76	0.78	6.739*	0.034
Concierge	2.72	0.87	3.09	0.79	2.90	0.66	10.796**	0.005
Cafeteria	2.76	0.81	3.10	0.87	3.04	0.77	12.274**	0.002
Dining room	2.76	0.87	2.66	0.95	2.37	0.99	5.903	0.052
Toilets (WC)	2.77	0.73	2.86	0.85	2.73	0.65	2.183	0.336
Work room	2.68	0.69	2.47	0.94	2.73	0.70	4.817	0.090
Study room	2.68	0.76	2.54	1.01	2.73	0.74	1.781	0.411
Computer room	2.75	0.76	2.23	0.91	2.51	0.89	19.376***	0.000
Music room	2.81	0.74	2.60	0.89	2.60	0.76	4.640	0.098
Plastic arts classroom	2.80	0.86	2.69	0.86	2.58	0.79	2.806	0.246
Language laboratory	2.73	0.84	2.59	0.92	2.59	0.82	1.391	0.499
Experimental Science Laboratory	2.79	0.82	2.66	1.01	2.56	0.81	3.182	0.204
Classrooms	2.81	0.80	2.89	0.87	2.79	0.74	1.118	0.572
Seminars (main building)	2.80	0.82	2.75	0.79	2.67	0.76	1.522	0.467
Undergraduate Hall	2.77	0.82	2.99	0.80	2.93	0.68	5.230	0.073
Assembly Hall	2.68	0.80	3.29	0.67	3.26	0.83	38.686***	0.000
Sports areas	2.66	0.82	1.64	0.88	1.64	1.01	76.833***	0.000
Green areas	2.64	0.86	1.51	0.69	1.49	0.83	100.021***	0.000
Student Information Point	2.65	0.73	2.15	0.93	2.35	0.96	17.102***	0.000
University Orientation Office	2.65	0.75	2.53	0.91	2.77	0.73	3.322	0.190
Cleaning service	2.79	0.85	3.28	0.68	3.14	0.66	20.710***	0.000
Security service	2.81	0.72	3.09	0.86	3.03	0.68	10.602**	0.005

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Table 6
Reasons for remaining in the degree.

Reasons for staying	Graduates	Students	U	p
I consider the degree to be theoretically interesting.	27.5 %	29.2 %	3258.00	0.819
Completing the degree is a goal that I have set myself	78.3 %	60.4 %	3628.00**	0.008
I find the degree easy and straightforward to follow	31.3 %	32.3 %	3185.50	0.899
Although the degree is not stimulating, it is my only option.	14.5 %	10.5 %	2827.50	0.455
The internships are interesting	34.3 %	42.7 %	2946.50	0.283
The classmates are a positive stimulus in my studies.	14.5 %	21.9 %	2757.00	0.251
Although there have been times when I have felt that I did not have the capacity to continue the degree, the support I have received has encouraged me to continue	17.7 %	14.6 %	2882.00	0.596
The degree has broadened my perspectives on what I want to do in the future.	35.7 %	40.6 %	3195.00	0.522
Obtaining the degree will allow me to get a job.	10.2 %	49.0 %	1735.50***	0.000
The financial support (scholarships, grants, etc.) has been an important incentive for me to continue.	37.5 %	15.6 %	2400.00**	0.002
At the university I have found a group of people with whom I identify and feel good.	60.0 %	29.2 %	2158.00***	0.000
I like the way the teaching staff at the Faculty treat me	44.4 %	21.9 %	2341.50**	0.003
I like the atmosphere at the Faculty	43.5 %	22.9 %	2362.00**	0.006
Other reasons	7.3 %	11.3 %	1874.50	0.450

*** $p < 0.001$, ** $p < 0.01$.

Table 7
Reasons for dropping out of the degree.

Reasons for dropping out	Dropouts
The degree was too theoretical	31.0 %
The degree did not turn out to be what I expected	53.5 %
The degree was too difficult	2.8 %
This degree was not what I really wanted to study	29.6 %
The degree was too practical	0.0 %
Classmates were not a positive encouragement in my studies	5.6 %
Lack of ability to adequately pursue these studies	7.0 %
The degree did not broaden my perspectives on what I wanted to do later in life	4.2 %
I did not see a satisfactory professional future with this type of studies.	14.1 %
I had financial difficulties to continue my studies	1.4 %
At the university I did not find a group of people with whom I identified and felt at ease	4.2 %
I did not like the way the faculty treated me.	2.8 %
I did not like the atmosphere at the Faculty	4.2 %
Incompatibility with work	11.3 %
Not having enough time to study	7.0 %
Demotivation and lack of enthusiasm for the degree programme	53.5 %
Other reasons	45.1 %
The degree was too theoretical	Chi2 = 300.816*** $p = 0.000$

*** $p < 0.001$.

4.1. Undergraduate university experience as a function of student groups

The main reasons for choosing degree programme, as well as the results of the Kruskal-Wallis non-parametric test for K independent samples H, are presented in Table 3. In addition, statistically significant differences were found for the majority of the motives according to student body type.

Participants in all three sectors were asked to rate the academic training received during their undergraduate studies from 1 to 4 points, with 1 = Inadequate and 4 = Adequate (see Table 4). Significant differences by student group are also evident.

They were also asked to indicate the level of adequacy of infrastructure, services and resources available to students on a four-point Likert-type scale (see Table 5).

Taken as a whole, the average level of satisfaction with the degree was 2.97 out of 4 points (SD = 0.65) for graduates, 2.90 (SD = 0.75) for undergraduates and 2.08 (SD = 0.86) for dropouts, the differences being statistically significant (Chi2 = 52.455, $p = 0.000$).

Likewise, the reasons why both graduates and undergraduates continued or continue studying the degree are shown in Table 6, as well as the difference between both groups, using the Mann-Whitney U test.

Students who dropped out of undergraduate studies indicated the reasons shown in Table 7. Statistically significant differences were found in the responses, according to Friedman's test for K related samples.

Other reasons include lack of enthusiasm for the degree, changing university campus or university and personal reasons.

4.2. Prediction of academic training received in degree with respect to type of student body

On the one hand, a factor analysis was carried out, using the principal component extraction method and Varimax rotation, to establish the groups or factors into which the assessment of the academic training received was grouped. The Kaiser-Meyer-Olkin

sample adequacy index was $KMO = 0.919$. Also, Barlett's test of sphericity was significant, $Chi2 = 2537.292$, $p = 0.000$. Therefore, a factor analysis was appropriate.

Four factors were found that explained 62.250 % of the total variance (see Table 8). Each factor is described below.

- The first factor, related to the teaching skills and competences of university teachers, explains 18.254 % of the variance.
- The second factor, more related to personalised attention to students, explains 15.214 % of the variance.
- The third, more general factor, relating to the main elements of student training, explains 14.950 % of the variance.
- The fourth factor, related to the infrastructure and resources for teaching linked to professional insertion, explains 13.831 % of the variance.

Based on the results of the factor analysis, four variables were created that integrated the different elements of academic training identified in the factor analysis. To this end, the score for each element was summed and divided by the total number of elements.

Subsequently, a linear regression analysis was developed in which the dependent variable was the sector or group of students (graduates, students and dropouts) and the independent variables were the four factors previously found. Firstly, the model was significant, $F = 12.295$, $p = 0.000$. Secondly, the coefficient of determination was $R = 0.395$, $R^2 = 0.156$. Personalised student attention (see Table 9) best predicted the student group.

5. Discussion

This work provides useful data for the evaluation of the university experience of undergraduate education students, incorporating a specific direction of analysis different from the more general studies carried out with all types of university students. The results of the study, which confirm the two initial hypotheses, point to an assessment of academic training that focuses on the need of the three groups of participants for individualised guidance from teachers. Thus, the study may be practical in providing universities with new data to help improve the teaching performance of teaching staff in education degrees with respect to students, encouraging, for example, their participation in tutorial action plans, which are so closely linked to individualised attention to students. However, one of the areas for improvement is to increase the number of participants, even from different Spanish universities. Moreover, it would be desirable to include students from foreign nationalities in the sample and to make comparisons with the Spanish participants.

In the set of variables influencing career choice, family tradition is an ambivalent factor in the choice of studies [46], which points to a different motivation for students of education degrees compared to other degrees, which could be interpreted as a negative element. In regard to vocation as a motive for choosing studies, this work converges with similar studies on teacher training degree students [12] and in other areas of training that are far removed from the discipline [9–11]. In the context in which the study was carried out, Melilla (Spain), these data take on special relevance, as both family tradition/recommendation and vocation are aspects derived from an environment in which students have been conditioned by an inescapable "ecological" influence of the education received through the family and the surrounding society [47].

With regard to the results derived from the first objective of the study, which was to analyse the undergraduate university experience of the different groups of students, it was found that the undergraduate university experience shown by the three groups of participants with regard to the academic training received indicates statistically significant differences, especially as regards three

Table 8
Rotated component matrix.

Academic training	Factors			
	1	2	3	4
Academic counselling and guidance, in general	0.253	0.303	0.700	0.021
Study plan	0.378	0.198	0.736	0.091
Theoretical training	0.428	0.159	0.592	0.096
Practical training	0.166	0.045	0.658	0.436
Mastery of contents taught by teaching staff	0.652	0.239	0.217	0.097
Development of skills and competences	0.637	0.236	0.301	0.185
Teaching methodologies and activities developed	0.500	0.190	0.388	0.326
Periodic evaluation of student work	0.720	0.179	0.286	0.226
Evaluation criteria and instruments	0.735	0.200	0.195	0.233
Quality of teaching, in general	0.636	0.326	-0.003	0.361
Spaces (classrooms, seminars, laboratories, etc.) for development of classes.	0.340	0.102	0.052	0.777
Technological resources for teaching (audio-visual, multimedia, etc.)	0.266	0.121	0.211	0.780
Offer of courses and areas of specialisation	0.225	0.480	0.146	0.456
Communication with teaching staff in classroom	0.316	0.720	0.129	0.117
Level of academic demand	0.270	0.584	0.230	0.236
Teacher attention outside classroom (e.g. in tutorials).	0.250	0.711	0.195	0.197
Climate generated with classmates	0.120	0.694	0.160	0.034
Work placements outside university classroom (in schools or other types of educational and social institutions, for example).	-0.037	0.379	0.580	0.389
Preparation for future professional insertion	0.133	0.398	0.281	0.594

Note. All factors saturated above 0.30.

Table 9
Linear regression analysis.

Predictor variables	Unstandardised coefficients		Standardised coefficients	t	p
	B	Standard error	Beta		
Teaching skills and competences of teachers	-0.189	0.111	-0.148	-10.703	0.090
Personalised attention to students	0.573	0.112	0.414	50.129***	0.000
General training	-0.355	0.106	-0.273	-30.335**	0.001
Infrastructure and resources linked to professional insertion	-0.238	0.084	-0.221	-20.849**	0.005

*** $p < 0.001$, ** $p < 0.01$.

aspects: Teaching methodologies and activities developed by teaching staff; Spaces for conducting classes; and Technological resources for teaching. These results are related to the three main dimensions that have traditionally characterised the formal teaching-learning scenario: teaching activity of teaching staff, content of subjects, place where teaching takes place and use of technological resources. Thus, it is not surprising that the participants highlighted these aspects as relevant, as they are highly coincidental with those shown by other similar studies[48] carried out in Spain with university students. However, this allows us to observe a tendency of Spanish higher education students to identify aspects of satisfaction with the university experience that have already been overcome in other countries and which should have changed with the incorporation of Spanish universities into the European Higher Education Area (EHEA).

In view of the above, the participants' perception of learning would be related to a scenario typical of the last century and far removed from the necessary recognition of the aims of the education received in the light of the competence training demanded by the EHEA. This training, on the part of the student and the university system, should underline the function of competences as a resource that activates different knowledge for making decisions and solving problems in a contextual manner[49].

As for the reasons for remaining on the degree, there are two that are indicated in this study as being the main ones. The first is related to the usefulness of obtaining the degree as a means of accessing a job (extrinsic motivation); the second is related to having found in the university a group of people who provide wellbeing (quality of university life).

The results of this study differ in the importance given to this factor by the participants with respect to the findings of other recent studies[50], in which the students responded by prioritising intrinsic reasons for their interest in the degree, such as enriching their knowledge and learning or contributing to the improvement of society. On the contrary, here we found a student profile that values the possibility of earning a salary from the degree more than cultural or altruistic reasons. This could be due to the fact that the participants in this study were motivated by exogenous factors that go beyond the traditional view of teaching as a vocational profession and thought of it as a job opportunity, perhaps driven by a context of job prospects in the public sector in the face of the current high unemployment rate among the youngest groups in Spain[51]. This datum is of great interest, as it could be the beginning of an undesirable trend in the choice and permanence in higher education studies, at least in Spain, on the part of students, to pursue these degrees without paying attention to the necessary social dimension that they should have. This could lead in the future to a loss of the human value and commitment needed in the pedagogical interaction between educators and their students, as well as to job frustration among those who do not assume from the beginning of the profession the kind of special relationship that teachers must have with their students, especially in the pre-university stages of education.

On the other hand, having found a group of people at the university who provide well-being as a factor for permanence indicates that students highly value this aspect as part of their quality of university life. Comparing these results with those of similar studies carried out with Spanish university students[48], it is noteworthy that in this study the participants incorporate an even more social value dimension, that of quality interpersonal relationships, both with classmates and with lecturers and administrative and service staff, which shows that a university faculty is more than just a teaching and learning centre, forming part of a systemic and complex structure in which the nuances contributed by all the people who participate or work in it are equally important in the perception of the student users.

When the time comes to identify the main causes of drop-out indicated by the participants, these are clearly centred on two elements: that the degree did not turn out to be what the student expected, and their demotivation and lack of enthusiasm for the degree. Both reasons for dropping out may be related, as the dropout phenomenon is multi-causal [34]. Moreover, this reinforces the analysis made earlier about the trend that has appeared in the choice of higher education studies by students towards avoiding taking the human commitment that these studies require into account. Thus, perhaps students who drop out do so because they did not consider the social dimension of educational studies and the necessary vocation with which these studies should be approached.

While it is not desirable for students to drop out of the degree they are studying, it does seem advisable for them to change if they feel demotivated or lack enthusiasm, so that, in the case of a degree in education, dropping out would also have positive aspects, avoiding future job frustration when faced with the reality of the classroom and the two-way relationship with students, which is not always easy.

Finally, in relation to the second main objective of the study, the results of the factor analysis, to define how the assessment of the academic training received by the student was grouped, indicated four factors, among which the subsequent linear regression analysis identified the factor of personalised attention as having the greatest predictive value for the type of student (graduate, student or dropout). This factor groups together both disciplinary aspects (course offerings and areas of specialisation or academic demand) and social aspects (communication with teaching staff, tutoring outside the classroom and climate with classmates).

These results point to something that other studies on teaching and learning have already shown: personalised education is one of the best tools for favouring student learning and retention[52–54]. In this case, it is identified as the main dimension for helping

students finish their degree and preventing those who feel inclined to drop out from doing so. Thus, it highlights the need to increase the efforts of teaching staff to strengthen their personalised teaching and also their tutoring skills, both of which are closely related.

6. Conclusions

All of the above should help and contribute to the improvement of the employability of education graduates, their access to the work environment and the avoidance of drop-out by those who have not received sufficient guidance support from the teaching staff.

For most students, higher education is a life-changing experience, entailing not just a financial but also emotional outlay, as along with time and effort. As a result, ensuring that students get the most out of their university experience and graduate with the highest degree possible necessitates clear communication about the expectations that both parties, students and lecturers, have of one another. Reiterating the active and self-governing role that students must play in their university education may result in students being more aware of the fact that they must accept full responsibility for their own academic success and recognise that their lecturers are only one of many resources for achieving success. Students should be fully aware of the importance of tracking their own progress toward earning their degree.

Furthermore, it is essential to accept that students and lecturers share responsibility for student achievement, and one step toward accepting such responsibility would be to obtain a greater understanding of the complicated mechanisms that appear to influence students' academic success. Variations in student and lecturer perception and experience make it challenging to measure it correctly. There is, frequently, a very basic and contrasted view of the traits of students who thrive academically vs. those who fail, with a particular emphasis on their degree of attention to study and their capacity to reason in accordance (or not) with the 'logic' of teachers. University students have gone through a rigorous selection procedure, thus it is presumed that they have a sufficient intellectual capacity to pursue higher level studies, that they have learned to learn, and that they are studying something in which they were initially interested.

Moreover, the worldwide economic downturn and the need to adapt educational systems not only to the specific conditions of each country, but also to the demands posed by a broad global vision with future prospects, make it an especially opportune time to reflect on and endeavour to propose a new approach to the Education-Work theme. It would be absurd to expect the educational system to tackle problems on its own, such as unemployment, the causes of which are beyond its scope and ability, or those resulting from social changes brought about by the technicians themselves. In any case, the educational sector operates entirely separate from the productive system in the traditional system, making it difficult for it to respond adequately to the constant variations that technological progress imposes on the professional qualifications required for business demand and thus for employment.

7. Limitations

In this investigation, generalisations should be used with caution. It is constrained by data availability, as is often the case with longitudinal data analysis. This restriction is especially pertinent to the second level of the multilevel analysis, which contains discipline-level findings. Although the model includes a discipline-level random effect to account for unobserved variability across disciplines, other possible student-level and discipline-level variables are excluded from the analysis, which can bias parameter estimates. Some predictors in the current model are thought to be endogenous factors; students' aspirations for professional education, for example, may influence their college experiences.

Likewise, although it is not a limitation of the study, it does point out the possibility for similar work in the future of applying innovative data analysis methods, such as machine learning methods, which offer the possibility of finding correlations hidden at first sight. On the other hand, students completed the questionnaires willingly, rather than as a prerequisite for a course. As a result, the sample is likely biased toward students who are more engaged and proactive in the first place. If there is no record of whether students were considered to be from a traditional or non-traditional background in terms of university education, the results may be influenced. Although we recorded whether students were doing their first degree course or had previously taken a course, the numbers were too divergent to compare meaningfully.

In the future, university education background, i.e., traditional vs. non-traditional, should be recorded as various groups of students may have different expectations. It might be useful to place particular emphasis on recruiting those who have previously enrolled on a degree programme and compare their expectations of university teaching and learning to those who have never previously done so. Overall, the sample size is modest, and given that it was drawn primarily from one programme (BSc Education), which traditionally has a very imbalanced male-female ratio, future studies should recruit from a variety of university programmes to balance the number of male and female students asked about their university experience. In addition, it would be interesting to collect data on programmes from other universities that reach Spanish territory, in this way the inferences would have more value. However, this initial study is a starting point to continue advancing on the subject.

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Data availability statement

The data that has been used is confidential. Data is available upon reasonable request.

Institutional review board statement

The study was approved by the ethics committee of the University of Granada. The approval number is 1556/CEIH/2020. The members of this commission guarantee that the work carried out satisfies all ethical criteria of a study with human beings. The registered data for each of the instruments was alphanumerically coded, ensuring confidentiality and anonymity, in order to comply with the Personal Data Protection Act by the Ethics Committee for Research related to Human Beings (CEISH). International ethical guidelines for studies with human subjects described in the Nuremberg Code and in the Declaration of Helsinki were applied.

Informed consent statement

Informed consent was obtained from all subjects involved in the study. Implied consent was acquired by agreeing to complete the questionnaires.

CRedit authorship contribution statement

Lucía Herrera Torres: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing. **María Teresa Ramiro-Sánchez:** Conceptualization, Writing – original draft, Writing – review & editing. **Laura C. Sánchez-Sánchez:** Conceptualization, Supervision, Visualization, Writing – original draft, Writing – review & editing. **Oswaldo Lorenzo Quiles:** Conceptualization, Funding acquisition, Project administration, Supervision, Writing – original draft, Writing – review & editing. **Teresa María Perandones González:** Writing – original draft, Writing – review & editing.

Declaration of competing interest

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Appendix A. Supplementary data

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