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# CÁTEDRA

## Relación entre rendimiento académico y asistencia como factores de promoción estudiantil

*Relation between academic performance and attendance as factors of student promotion*

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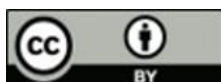
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### Resumen

El artículo académico aborda la correspondencia entre el rendimiento académico y asistencia como factores de promoción del estudiantado de la Facultad de Filosofía, Letras y Ciencias de la Educación (FFLCE) de la Universidad Central del Ecuador (UCE), a partir de información documental de los archivos institucionales que registró la Unidad de Servicios Informáticos de la Facultad de Filosofía (USIF) en el período académico 2016 - 2017, de manera principal el componente calificaciones de todos los niveles (semestres), considerados los promedios de las asignaturas de las diez carreras vigentes para titulación, aprobadas por el Consejo de Educación Superior (CES), en las que constan matriculados 3617 estudiantes. Los promedios de las calificaciones y asistencias, fueron calculados mediante un análisis estadístico con el uso del coeficiente de correlación y se obtuvo un 0,75; lo cual significa que hay una correlación positiva moderada y directamente proporcional. Rendimiento académico y asistencia por la variable sexo del estudiantado



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(hombres – mujeres), no evidencia diferencia significativa, lo que quiere decir que tienen similares calificaciones y asisten por igual a las clases.

## Palabras clave

Rendimiento académico, calificaciones, asistencia, promoción estudiantil.

## Abstract

The academic article shows the correspondence between academic performance and attendance as factors of success of the students of the Faculty of Philosophy and Education Sciences (FFLCE) of the Central University of Ecuador (UCE), from documentary information of the institutional files registered by the Computer Services Unit of the Faculty of Philosophy (USIF) in the academic period 2016 - 2017, in a main way the qualifications component of all the levels (semesters), considered the grade-point averages of the subjects about current careers for degree, approved by Consejo de Educación Superior (CES), in which 3617 students are enrolled. The grade-point averages and attendance were calculated through a statistical analysis with the use of the correlation coefficient and a 0.75 was obtained; this means that there is a moderate positive correlation, and directly proportional. Academic performance and attendance by sex of students (men - women), it does not show significant difference, which means that have similar qualifications and attend classes equally

## Keywords

Academic performance, grades, attendance, student promotion.

## 1. Introduction

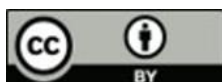
The main roles of the university are: teaching, research and linkage as a dynamic and integral whole, whose ultimate aim is the professional training, the scientific production and the contribution to the solution of problems of the society. Out of these roles, teaching shows to be a priority in the university management, since it tries to professionalize the youth with solid scientific, technical and humanistic knowledge to contribute to the development of the society and the State.

The educational system recognizes, at any level of the student training, but more specifically at the higher level, as a promotion factor the so-called academic performance, which is conceptualized:

[...] It is sometimes referred to as school aptitude, academic performance or school performance, but generally the differences of concept are explained only by semantic questions, since generally in the texts, the school life and the teaching experience, they are used as synonyms (Navarro, 2003, p. 2).

Academic performance determines the approval or failure of a semester, a course or a module, as well as the level of success after a formative stage such as grade or semester. Thus, the article addresses to this conceptual category from a quantitative perspective and based on the statistical analysis.

The academic performance has been investigated at the national and global level, reaching various conceptualizations in the educational field, known as multicausal, which includes a



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number of aspects involved in the process and it is the main indicator of learning achievement.

Perhaps the most accurate definition is that academic performance is the sum of different and complex factors that act on the student. It has been defined with a value attributed to the achievement of the student in the academic tasks; and it is measured by the qualifications obtained with a quantitative valuation, whose results show the subjects studied, the deflection and the degree of academic success (Garbanzo, 2007, p. 46).

The research carried out on this complex thematic agrees that in order to achieve a good academic performance, some dimensions must be integrated such as: dedication and effort to learning, academic ability, socioeconomic context, motivation, learning and teaching styles; among other factors that directly influence the qualifications obtained by the students. In other words, through academic performance is determined learning achievements obtained by the student and expressed by a qualitative or quantitative grade, or with its qualitative equivalences, as a result of the valuation of a set of academic activities planned.

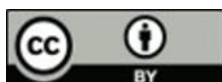
The article addresses the relationships between the academic performance with class attendance and the difference between the sex variable of the students (male and female). The reflections obtained in the study seek to expose and explain the academic performance achieved by the students of the 10 careers of the Faculty of Philosophy, Letters and Education Sciences of Ecuador; this analyzes the averages of grades and attendance that students have by subject in the semester 2016-2017.

The evaluation instructions of the UCE with its corresponding academic system, on the basis of the regulation of academic year 2016 of the Council of Higher Education (CES), has established that each student obtains two qualifications in the semester, being about 20 points each, which must be at least 28/40 points to approve each subject; for those students who have between 8 and less than 28 points, they have the right to take a replacement exam whose note (over 20) added to the average achieved in the two parts of the semester must be at least 28 points for its approval, and if they have less than 8 points, they have automatically failed the subject.

The purpose of the research is to analyze the relationship presented between the academic performances with the attendance to classes, considering the variable sex of the students enrolled in the Faculty in the period 2016-2017.

The careers belonging the faculty are: Language Sciences and Literature, Natural Sciences, Social Sciences, Commerce and Administration, Informatics, English, Mathematics and Physics, Preschool, Languages, Educational Psychology, those which are in the approval process of their redesigns and curricular designs in the semester, and that will change their nomenclature from the following period. The careers have from 49 to 69 subjects distributed in the nine semesters for the degree in Education Sciences. The data analyzed are the grades of the students obtained by subject in each one of the careers, from which the average of the grades per student and per career is systematized.

The second variable analyzed was the attendance of the students to classes, which were obtained from the database of the faculty in percentage values, from which the average per career was calculated, considering the means of assistance of the students for each subject. UCE's policy on assistance is that in order to approve a subject, the student must achieve



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the minimum standard of 80% during the semester (Rodríguez, 2016). The student population of the faculty enrolled in the academic period 2016 – 2017 is 3617 classified as: 35.44% men and 64.56% women; distributed in the ten careers and in the nine academic semesters corresponding to the professional training of the degree.

This study aims to determine whether the quality of class attendance improves the student academic achievement. In addition, it seeks to establish whether there are differences between the academic performance of male and female students; statistical results are presented by means of tables and graphs illustrating the characteristics of the research variables to identify whether there is a relationship between the percentages of student attendance with the averages of students' qualifications.

A comparison is also made among the averages of the qualifications, the attendance percentages among male and female students by careers and in the whole faculty.

## 2. Academic performance

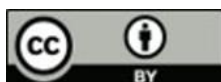
Student academic performance is the most important aspect of any educational process when analyzing the educational quality because for the: "(...) University students is an essential factor in the approach of the subject for the quality of higher education, because it is an indicator that allows an approximation to the educational reality" (Garbanzo, 2007, p. 43). The teaching is constituted by actions planned and developed mainly by the teachers to achieve a learning result in the student as an intellectual effort assumed, and that is concrete in the academic performance observed through the summative evaluation, hence, the concept of performance states:

It is evident that the approach to academic performance could not be exhausted through the study of students' perceptions of the variables of skill and effort, and could not be reduced to the simple understanding between attitude and aptitude of the student. The demand for analysis and evaluation of other factors allow entering more in the academic performance as a phenomenon of study, [...] variables will be addressed, ranging from its conceptualization, prediction and evaluation to research developed in different education levels [...]. (Navarro, 2003, p.2).

Academic performance involves a number of components such as the ability, effort, attitude and aptitude of the student. In addition, academic performance can be explained as the result of the entire teaching and learning process, implemented on a regular and non-regular basis, obtained individually and collectively through the evaluation.

The academic performance as a final product of an evaluative process is mediated by social factors of the context; however, there are also intrinsic and extrinsic motivational factors that favor or hinder learning. The presence of pedagogical, didactic and curricular factors also determines the performance and make visible the didactic methods, resources, skills, contents and values that are used for this evaluative process. The evaluation is an essential part of the teaching-learning process. In this regard, Arribas (2014) states: "one of the main manifestations of academic performance is the qualifications" (p. 2).

In this article, reference is made to an element of academic performance such as qualifications, obtained through the evaluation of the learning process in its final stages for accreditation in an educational system or subsystem. Although it is true, qualifications involve a high dose of subjectivism and in many cases do not reflect the current capacities



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achieved by the students, however, they are the most obvious results of the academic achievement obtained by the students.

## 2.1 Qualification and academic performance

It is also necessary to consider a different learning perspective in which there is greater determination of the process against the product or performance. In this regard, Carretero (2009) states:

[...] learning is synonymous of understanding. Therefore, what is understood is what is learned and what will then be remembered better, because it is integrated into our knowledge structure. Therefore, it is essential for the teacher not only to know the representations that the students have about what they are going to be taught, but also to analyze the interaction process between the new knowledge and the one they already own. In this way, the final product produced by the student is not as important as the process that leads him/her to provide a certain answer (p. 2).

At the academy level, there is a very strong controversy about pointing to grades or ratings as the most obvious expression of academic performance. It is substantial to be aware that there are other important aspects when analyzing the learning generated in an educational process such as: skills, knowledge, behaviors, practice of values, social relevance, among others. However, qualifications are the primary indicators for determining academic performance, which is expressed by a qualitative or quantitative assessment obtained by the student.

Murillo (2013), contextualizes the academic performance as the sum of a set of varied, complex and interdependent elements that participate in any process oriented to learning, which is evaluated permanently and as a result it obtains the qualifications through a generally quantitative scale with its corresponding qualitative equivalence, evidencing the approval or failure of the subject.

Similarly, (Garbanzo, 2007) assumes a conceptualization that is similar to the one presented above:

The valuation of academic performance does not lead to anything other than the relationship between what is learned and what is achieved from the point of view of learning, and is valued with a grade, which results from the sum of the achieved grade by the student and the different academic activities conducted (p. 46).

In this context, the results of the evaluations, expressed in qualitatively or quantitatively grades, are in fact the most used evidence to verify outcomes when studying academic performance.

According to the regulations of the student evaluation system RSEE (2017), approved by the Council of Higher Education CES, it implements the general guidelines to develop the evaluation of the learning, and also establishes that each university must elaborate an internal evaluation system with specific characteristics of the institution, contemplating the guidelines established by the CES and, in addition, conceptualizing the evaluation of learning in the following terms:



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Article 5.- Evaluation as a learning component.- The evaluation of learning is essential in the educational process of the students, of the careers and programs, that by being systematic, permanent and participatory allows the integral assessment of its advances in the acquisition of cognitive, investigative, procedural and attitudinal capacities, in such a way that they contribute to guarantee the quality of the professional training (CES, 2016, p. 4).

Each academic semester is divided into two terms and each one applies an evaluation process that consists of a test that corresponds to 40% of the qualification and other evaluation strategies as teamwork, autonomous work, research, projects, among others, corresponding to 60% of the 20 points.

The evaluation of the learning is expressed in results considering the following scales; qualitative qualifications: excellent, very good, good, regular and deficient. While quantitative ratings are set on a scale from 0 to 20 points.

For the approval of each subject, the students must obtain at least 28 points in the sum of notes of the two terms. If this score is not achieved, the student is entitled to an additional recovery assessment, provided that he/she obtains a qualification higher than 8.8 points in the semester; if the grade is lower, the student will fail the subject. The recovery evaluation is made up of 60% of the qualification obtained in the recovery exam, plus 40% of the sum of the scores in the first and second term. In the same way, for approving the subject the student must have 28 points in the recovery evaluation, otherwise he/she will fail the subject (Rodríguez, 2016). Thus, the minimum standard for the term at UCE is 28/40 points.

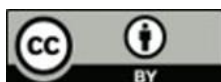
## 2.2 Attendance

In the field of higher education, attendance is defined as "(...) the daily attendance of the student to classes" (University of Las Palmas Gran Canaria, 2011, p. 1), which is mandatory, except in online education, so that the student must arrive on time to participate in the different subjects that have registered. On the other hand, each teacher is responsible for recording the attendance of the students, individually, in every hour of classroom work, and at the end of each term the professor must record the total attendance to the computer system of the UCE.

Universidad de Loyola- Andalucía, in the teaching guide states:

Class attendance is an essential element in the learning process of the subject, along with the active participation of the students in their development and continuous work. The subject's plan requires the student's attendance and participation in class so that the student can achieve the objectives and competencies of the subject (University of Loyola Andalucía, S.F., cover).

The attendance refers to the physical presence of the student in the classes of the different subjects. According to the regulation of academic regime promulgated by the CES in the year 2013 for the institutions of higher education (IES) of Ecuador, in its reform of March 2017, states that the careers must comply with 7200 hours distributed in 54 subjects, organized in three curricular units: Basic, professional and qualification, during the nine academic terms. This number of hours includes the teacher-assisted classroom work plus the autonomous work developed by the student in a six-monthly period of 16 weeks (CES, 2017).



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For the approval of a subject, students and professors comply with the current legal national and institutional regulations in relation to the evaluation of the learning in which two components are integrated: the qualification and the attendance obtained by the student in the semester. According to the instruction for the student assessment issued by Universidad Central del Ecuador on May 2017, paragraph 12 provides that: "The subjects, courses or equivalents to be taken by the students during their training will be approved with a minimum of 70% of the qualification and a minimum attendance of 80% of classroom classes" (UCE, 2017, p. 3). This mandate agrees with the academic vice-rectorate provision of UCE on October 2016, which served as the basis for analyzing student attendance in this article.

### 2.3 Student promotion

The student promotion at the university is known as the approval of a course, subject or module after a regulatory time of studies and personal effort, as defined by Suárez (2011) "[...] Passing one course to another when the educational and personal objectives have been obtained by the pupil"(p. 1). For approving, several constant requirements are required in the general and private regulations of the IES. In the case of the UCE, for the promotion of school level, the University statute stipulates that:

Art. 160.-Approval of courses and subjects.- The subjects or courses that must be coursed by the students during their training period will be approved with a minimum of 70% of the qualification and a minimum attendance of 80% of in-classroom classes (UCE, 2016, p. 70).

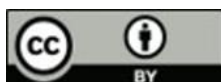
UCE in all its careers has two obligatory requirements: to promote to its students the qualifications and assistances for subjects and semesters.

## 3. Methodology

The study was non-experimental, transectional and descriptive, since only the observed variables are described, without having any special treatment; the data corresponded to an academic period; the unit of analysis is the results of the student qualifications of the semester 2016-2017. The data for descriptive analysis were extracted from the computer archive of the Faculty Philosophy, Letters and Education Sciences of UCE, in charge of the Technological Services Unit of the Faculty (USIF). The study is approached from the documentary research; additionally, important contents and integrated empirical data of qualifications and assistance provided by USIF were selected and were subjected to deep reflection to establish valid conclusions regarding the study of the subject.

The population immersed in the research is: N = 3617 students enrolled in the 2016-2017 semester in the ten careers of the Faculty of Philosophy, Letters and Education Sciences as shown in Table 1.

Careers	Student population		
	Women	Men	Total
Language and Literature	212	119	331
Natural Sciences	225	139	364
Social Sciences	200	174	374
Administration and Business	82	48	130
Informatics	71	250	321
English	209	128	337
	113	173	286



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Physics and Mathematics			
Preeschool	498	3	501
Languages	240	77	317
Educative Psychology	485	171	656
TOTAL FFLCE	2335	1282	3617
	(64.56%)	(35.44%)	(100%)

Table 1. Student population at the Faculty of Philosophy, Letters and Education Sciences (FFLCE).

As shown in table 1, most of the population is female, this is 64.56%, while men are 35.44%. In addition, there are more than 80% female students in careers like preschool, psychology and multilingual that are the most populated. The careers investigated are in the process of approving their redesigns and curricular designs; consequently, they will change their nomenclature from the next academic period.

#### 4. Results and discussion

The results presented below are derived from the statistical analysis carried out with the data corresponding to the study variables, such as the attendance expressed in percentage over 100% and the academic performance in scale of semi-annuals qualifications from 0 to 40 points corresponding to the semester 2016-2017.

Carreers	Average grades	Average attendance	Correlation coefficients
Language and Literature	33.43	92.73%	0.80
Natural Sciences	32.16	93.05%	0.76
Social Sciences	31.90	94.70%	0.48
Administration and Business	29.25	86.82%	0.77
Informatics	28.72	88.37%	0.75
English	32.57	94.78%	0.48
Physics and Maths	30.04	93.86%	0.57
Preeschool	33.99	94.78%	0.66
Languages	32.08	91.22%	0.81
Educative Psychology	32.80	94.14%	0.70
TOTAL FFLCE	31.69	92.45%	0.75

Table 2. Average of qualifications and attendances per career at FFLCE

The averages of qualifications per career are presented in Table 2, and are expressed on a scale of 40 points, being the career Preschool the one with the highest average grade (33.99/40 points) in student academic performance, while Informatics presents the lowest average (28.72/40 points).

The average academic performance of the 10 careers of the faculty is 31.69/40 points, higher in 3.69 points to the minimum promotion standard of the UCE of 28/40 points, but lower in 8.31 of the maximum standard of 40/40; therefore, its level is valued as good according to Rodríguez (2017). Then there are two career groups located above and below the overall academic performance average; 8 careers have higher averages but close to the mean. Only two careers are below, but with averages far from the media.

On the other hand, the arithmetic mean of the average attendance is 92.45% for the 10 careers; being the careers of Preschool and English the ones with the highest attendance percentage (94.78%); while Business has a lower average with 86.82% of attendance. In



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Social Science some subjects have an attendance percentage of 100 %. Six careers exceed the average, while four are below the average. The average of student attendance of the faculty exceeds 12.45 percentage points to the minimum standard established by the UCE.

#### 4.1 Correlation test

The calculated statistical test was Pearson's R correlation coefficient, between the average of grades and average attendance, considering the totality of students in all ten careers. The correlation rate in the different careers is in a range from 0.48 to 0.81, and at the faculty level is 0.75 as shown in Table 2.

By interpreting the Pearson correlation coefficient of 0.75; it means that there is a high positive correlation, according to the equivalences of Table 3. The positive coefficient means that there is a directly proportional relationship among the two variables, in other words, if the average of grades goes up, the attendance percentage also increases. However, it should be noted that in the careers of social sciences and English the correlation is moderate between qualifications and attendance unlike the other careers.

>0.80	Very high
0.60 - 0.79	High
0.40 - 0.59	Moderate
0.20 - 0.39	Low
<0.20	Very low

Table 3. Interpretation of correlation coefficients.

Source: <http://personales.unican.es/salvadol/apuntes2b.pdf>

#### 4.2 Approved and Reproved

The students in order to pass a subject must have at least 28 points and 80% of class attendance in each subject. The trend of approved and reproved students is presented in Table 4.

Careers	Number of students	Percentage of approved Total of subjects	Percentage of reproved Total f subjects
Language and Literature	331	96.29%	3.71%
Natural Sciences	364	94.53%	5.47%
Social Sciences	374	93.56%	6.44%
Administration and Business	130	87.57%	12.43%
Informatics	321	79.87%	20.13%
English	337	93.59%	6.41%
Physics and mathematics	286	86.28%	13.72%
Preschool	501	97.42%	2.58%
Languages	317	93.02%	6.98%
Educative Psychology	656	95.19%	4.81%
AVERAGE FFLCE	3617	91.73%	8.27%

Table 4. Percentage of approved and reproved students by career at FFLCE.

The average of reproved students is 8.27% in the faculty, i.e., they have not exceeded the minimum score required in academic performance, attendance or the two requirements.



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Careers that have a lower rate of reprovved students are: preschool with 2.58%; Language Sciences 3.71% and psychology 4.81%. However, there are three careers that have a higher repetition rate, these are: computer science with 20.13%; mathematics and physics with 13.72% and administration and business with 12.43% of reprovved. It draws attention the reprovved rate in these careers, so it is necessary to do a deeper investigation to determine the causes of this academic problem.

Subjects by careers. - It is important to mention that the subjects in the careers vary numerically; there is a block of common subjects which are oriented to the professional training in all the careers of the faculty; and another block of subjects that emerge from the specialized training of each career.

English has a smaller number with 41 subjects, while Preschool has 69 subjects and the average subject for careers is 56.5. Table 5 shows the number of subjects per career.

Careers	Number of subjects during the period 2016 – 2017
Language and Literature	56
Natural Sciences	58
Social Sciences	53
Adinistration and Business	49
Informatics	55
English	41
Physics and mathematics	66
Preschool	69
Languages	59
Educative Psychology	59
AVERAGE FFLCE	56.5

Table 5. Number of subjects per career at FFLCE.

Difference between academic performance and assistance by gender.- To consider the gender variable, i.e, the one that differentiates the qualifications and the attendance achieved by the male and female students. In table 6, a cross-sectional analysis is made of the average values obtained in the grades and the attendance to classes in all the subjects by the students of all the careers.

Careers	Men		Women		Total	
	Grades	Attendance	Grades	Attendanc e	Grade s	Attendanc e
Language and Literature	33.43	92.71%	33.43	92.75%	33.43	92.73%
Natural Sciences	32.15	93.04%	32.16	93.05%	32.16	93.05%
Social Science	31.90	94.70%	31.89	94.69%	31.90	94.70%
Administration and Business	29.31	86.92%	29.18	86.72%	29.25	86.82%
Informatics	28.72	88.37%	28.72	88.37%	28.72	88.37%
English	32.57	94.78%	32.56	94.77%	32.57	94.78%
Physics and mathematics	30.04	93.87%	30.03	93.84%	30.04	93.86%
Preschool	33.91	94.66%	34.07	94.90%	33.99	94.78%
Languages	32.06	91.18%	32.09	91.25%	32.08	91.22%
Educative Psychology	32.79	94.13%	32.80	94.15%	32.80	94.14%
AVERAGES FFLCE	31.69	92.44%	31.69	92.45%	31.69	92.44%

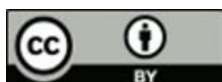


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Table 6. Attendance and qualifications average according to the gender variable

According to the results observed in Table 6, there is no difference in academic performance, compared to male and female students, since the average is 31.69 points for both groups. In relation to class attendance, the difference is minimal in male and female students, as shown in Table 6. Therefore, it can be established that there are no significant differences in qualifications and attendances averages between male and female students.

Careers	Subjects in the period 2016 – 2017	Grades over 40	Subjects in the period 2016 – 2017	Grades under 40
Language and Literature	Cultural and ecologic reality	38.08	Language and literatura didactics I	26.16
	Teaching	37.00	Language and literatura didactics I!	27.47
	Universal Literature V	36.98	Investigation III	28.20
Natural Sciences	Internship and investigation	39.88	Physics	26.89
	Pre-profesional practice III	39.75	General Chemistry I	27.04
	Pre-profesional practice II	38.72	General Chemistry II	28.86
Social Sciences	Pre-profesional practice I	40.00	Philosophy II	27.38
	Pre-profesional practice IV	39.29	History of Ecuador II	27.47
	Pre-profesional practice III	39.14	Investigación I	27.68
Administrat ion and Business	Educative law	37.55	Philosophy of Education	0.00
	Pre-profesional practice V	36.22	Methodology of investigationn I	0.00
	Pre-profesional practice III	35.46	Statistics I	5.50
Informatics	Profesional ethics	38.80	Physics I	19.18
	Electronics	38.04	Mathematics III	21.83
	Investigation	37.25	Mathematics I	21.83
English	Tic I	37.03	Contrastive linguistics V	25.44
	ESP	37.00	English VI	25.46
	Didactics II	36.87	Didactics I	27.71
Physics and Mathematic s	Electronics I	39.67	Physics I	23.58
	Electonics I	37.88	Analytical geometry	24.00
	Algebra	37.50	Mahematics I	24.35
Preschool	Entrepreneurship	39.77	Investigation III	27.55
	Pre-profesional practice II	39.06	Music	29.52
	Child dance	39.00	Neuroscience I	29.92
Languages	Pre-profesional practice IV	38.00	Elective	24.00
	Learning evaluation	37.91	Contrastive Linguistics II	26.68
	Research projects II	37.63	Didactics I	27.30
Educative Psychology	Pre-profesional practice Psychopedagogy II	38.63	Psychophysiology II	24.62
	Pre-profesional practice Psychopedagogy IV	38.35	Childhood Psychology II	28.27



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	Pre-profesional practice Psychopedagogy I	38.21	Psychostatistics I	29.11
Average	High scores	38.15	Low scores	25.46

Table 7. High and low grades in subjects per career at FFLCE

Subjects with high and low grade averages. - In table 7, the three subjects are presented by careers with the highest and lowest academic performance of the students at the Faculty of Philosophy, Letters and Education Sciences.

It is evident that in pre-professional practice the student qualifications are higher, very close to the 40/40 points; while the lowest averages are present in the specialty subjects. The three subjects per career with the highest scores are at intervals of 36.22/ 40 points and have an arithmetic mean of 38.15/40 points. While the lowest scores for groups of three subjects per racewere calculated in the range of 29.92 and lower, resulting in an arithmetic mean of 25.46/40 points.

Pre-professional practice I of the career of Social Sciences presents the lowest grade average among all the careers with 40/40 points. While the subject of statistics I of Administration and Business have the lowest average among the 10 careers with an average of 5.5/40 points. It is interesting to mention that the subject Philosophy of the Education and Research Methodology I of the career of Administration and Business have grade averages of 0 points as it is shown in Table 7.

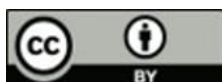
## 5. Conclusions

The academic performance expressed in the qualifications obtained by the students of the 10 careers of the Faculty of Philosophy, Letters and Education Sciences of Universidad Central del Ecuador in the academic period 2016-2017 is satisfactory; i.e., the student promotion objectives were achieved; however, it has intermediate level in the scale table of the guidelines for student grade evaluation of UCE. The careers located in the superior and inferior extremes are Preschool and Informatics, respectively.

Student attendance is in a very good percentage range, well above the minimum standard regulated by Universidad Central del Ecuador, implying that there is student responsibility for their classrooms and teacher control in the classroom. The careers of preschool and English stand out positively in the quality of attendance; while the trade career is observed as the lowest student attendance.

Academic performance averages and class attendances do not present significant differences between male and female students, which explains that the gender is not an incident factor in the student academic performance of the Faculty of Philosophy, Letters and Education Sciences.

The correlation between academic performance and student attendance calculated with Pearson's correlation coefficient is 0.75, which means that there is a moderate and directly proportional positive correlation between the variables under study. This implies that if the student's attendance rate is increased, his/her academic performance also goes up.



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In the faculty, the average of approvals in the semester studied is higher than 90%, including academic performance and assistance as mandatory requirements. However, there are three careers with a high repetition percentage: Computer Science, Mathematics and Physics, and Administration and Business. The careers: Preschool, Language Sciences and Psychology have lower percentage of reprovved students.

In terms of the subjects with the highest and lowest student academic performance, pre-professional practice stands out as well as an important group of subjects with excellent academic performance that is very close to the maximum promotion standard; also recurring are the low averages in subjects of specialty in all the careers studied, being more evident this phenomenon in the career of Administration and Business.

From the comparison study between academic performance and gender, it is fundamentally similar in the average scores between male and female students of the 10 careers, with a minimum difference in class attendance favorable to female students.

To support the study, it was necessary to evaluate the number of subjects per career in the general context of the faculty, considering those of vocational training and specialized training of the careers, being English the career with a lesser number of subjects (41), while preschool has the highest number of subjects (69). The arithmetic average of subjects per career (56.5) is very close to rules of the academic system of CES.



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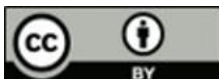
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