Journal of Positive Psychology & Wellbeing
2022, Vol. 6, No. 1, 3857 – 3871

http://journalppw.com
ISSN 2587-0130

Student engagement and academic performance during remote education at a public university in Peru

Esther Lezama Romero[1], Carlos Albrecht Lezama[2], Oscar Marín Rosell[3]

[1]*Universidad Privada del Norte, Lima, Perú*
Universidad Nacional de Cajamarca, Cajamarca, Perú
esther.lezama@upn.edu.pe
elezamaro@unc.edu.pe
ORCID: 0000-0001-5408-0227
[2]*Universidad Nacional Mayor de San Marcos, Lima, Perú*
carlos.albrecht@unmsm.edu.pe
ORCID: 0000-0002-0879-0671
[3]*Universidad Nacional de Cajamarca, Cajamarca, Perú*
omarin@unc.edu.pe
ORCID: 0000-0002-6844-1676

Abstract

The Covid-19 pandemic has been the opportune context for the pedagogical disruption that has not only demanded new responses to confront the circumstances but has also led to new experiences to enrich knowledge and pedagogical practice. In university education, the pandemic has marked a before and after. Remote teaching has reduced the gap between traditional teaching and the virtual modality, which is emerging in the public university. This requires exploring the new environment to understand and act proactively with management that favors educational quality, in a context of external evaluation and accreditation, evidencing not only technical and cognitive performance; but in the development of skills that adjust to the demands of today's society.The study is quantitative, descriptive-correlational design, and cross-sectional, whose objective is to determine if there is a correlation between student commitment and academic performance in the context of remote education, by Covid-19. The sample was stratified and consisted of 87 students, enrolled for the first time in the first year of a public university in Peru. The evaluation instrument used was Schaufeli's (2011) 17-item version of the Academic Engagement Questionnaire for Students (UWES-S), which was self-administered through a Google form, accessed individually through institutional mail, and completed anonymously, with prior informed consent. The results show that there is a correlation between student commitment and academic performance. It is concluded that the higher the student commitment, the higher the academic performance and that the dimensions vigor, dedication, and absorption are indicators of commitment, and are configured as predictors for retention and university educational quality, in which the challenge is not only to train good professionals, but also good people, capable of transforming society by generating personal and social well-being.

Keywords: academic engagement, academic performance, university, virtual education, remote education, educational quality, university retention.

Introduction

Academic performance is a topic of global interest since it is one of the most important indicators when determining the quality of education in

university education, which, according to OECD (2020) is affected by the phenomenon of dropout, which is currently between 30% and 50%. The problem becomes more complex in the region since, even though the coverage of university education has increased, in recent years, according to the UNESCO International Institute for Higher Education in Latin America and the Caribbean, a percentage exceeding 50% of students do not graduate and if they do graduate, they do not manage to enter the labor field of their specialization (Blanco, 2018).

Caring for university educational quality is a challenge that has not yet been resolved, and this cannot be evaluated without external accreditation and evaluation (Cabrera, 2005), which in Peru began with the process of licensing and accreditation of university institutions (Minedu, 2014). , and that, in addition, it is not limited to academic performance that evaluates knowledge and technical skills, but is expanded in personal and social training, as Seligman (2011) points out, it is necessary to generate spaces that allow developing the individual strengths of the students.

The problem could be exacerbated due to the extended period of the pandemic, which brought about the untimely change from face-to-face to remote mode using a virtual teaching context, because even when this was aligned with the contextual needs, it also represented a challenge, putting university retention and academic performance at greater risk. According to Yáñez (2011), virtual courses are not successful for all students because they require maturity and commitment, and many times undergraduate students are not prepared to face them.

According to Ordaz & García (2018), academic failure and university dropout have a multifactorial causality, those referring to the context have been widely investigated; however, a deficit of analysis represents the variables referring to the student himself, who, being an important subject in the process, has not maintained the same relevance in the investigative interest. Among these, commitment is undoubtedly a factor that adds value to the learning experience, with a positive effect on the results, as concluded in two studies.

López-Aguilar *et al*. (2021), in their study on university engagement at the University of Laguna, Spain, concluded that students who achieved higher scores in each component of the engagement variable achieved higher grades in their courses; concluding that the components of academic engagement can have a significant impact on the achievements they obtain. If the implication is negative, the probability of failure or dropout would be very high, and if the implication is positive, students would achieve success in their studies, reaching their goals. Chávez-Hernández *et al*. (2018), in Mexico, found a greater positive correlation between the factors Vigor and Absorption, observing that persistence, effort, inspiration, and enthusiasm are indexes that stand out, verifying that students with better academic results show a positive mental state of "engagement". They conclude with the importance of vigor and absorption for the academic performance and well-being of students.

In Peru, Ramírez Yparraguirre (2017), in the master's thesis entitled Individual and contextual factors that affect university dropout of students in the Beca 18 Program in Peru, addressed the issue of academic failure, expressed in disapproval and dropout, which occurs in public and private universities, concluding that individual factors, including commitment, are predictors of academic dropout. Likewise, Ochoa (2019), in his study, Management of student commitment in academic performance in the dental school of the Universidad Nacional Mayor de San Marcos (UNMSM), investigates the incidence of the management of student commitment in the academic performance of the students in the sample, concluding that there is a direct and significant causal correlation between the Management of Student Commitment and Academic Performance reflected in the Wald coefficient greater than 4.00 and the value of statistical significance p_value < 0.05.

Numerous studies indicate that student engagement favors improved academic performance; however, it is necessary to know to what extent this is replicated in the context of remote teaching. The sudden change represented a challenge that generated distrust on the part of students, and a challenge for teachers

inexperienced in the management of virtual learning, and that nevertheless, represents a change that will exceed the pandemic period, to give way to new ways of teaching and managing university education, generating new possibilities in an environment where technology is a fundamental axis.

The present study raises the question: Is there a correlation between student commitment and academic performance in students entering the National University of Cajamarca, in the context of remote teaching? Determining this correlation will allow the establishment of proactive measures to strengthen, from the university management, the student commitment variable, to favor university retention and educational quality, in the context of distance education, with a view to external evaluation and career accreditation.

Student engagement

The study of commitment or engagement arises in the labor field, however, after the analysis of the construct, its use has been extended to educational contexts, being found in research under the terms of academic engagement, student involvement, or academic engagement. At a theoretical level, there is no consensus on its definition, however, as Kahn (2017) points out, it is a variable that implies personal experience, and highlights the commitment aspects referred to the cognitive, emotional, and mental. On the other hand, Schaufeli (2002) points out that engagement is defined by the vigor, dedication, and absorption that arise at the moment of performing the academic activity, producing concentration and enjoyment, with no other motivation than the activity itself.

In general, and even though there is no theoretical consensus, it is evident that it is a variable that implies personal experience. It involves the student's involvement in the study process to learn and achieve the proposed objectives, generating a positive connection between the person and the activity, which will result in greater self-motivation and better academic results.

There are several theories on student engagement. The first theory that addresses the study of this variable is the theory of university involvement. Astin (1999) defines it as the physical and psychic energy that a university student uses for his learning process and other academic experiences, that is, it refers to the dispositional characteristics for the different academic activities and their learning objectives. University student engagement is an active commitment and is considered "a possible antidote against demotivation and academic underachievement" (Arguedas, 2010, p.64).

A valuable contribution to engagement is the contribution of Positive Psychology, and according to Seligman (2009) this is a fundamental pillar of well-being, which implies the use of personal strengths.

Dimensions of student engagement

The approaches to the analysis of the variable are diverse, and each of them presents its dimensions. However, in the framework of the research, the three-factor theory of academic engagement (Salanova, 2009), which integrates vigor, dedication, and absorption as components, is summarized in the following terms:

"Engagement is a positive, satisfying, work-related state of mind, characterized by vigor, dedication, and absorption. Rather than a specific, momentary state, engagement refers to a more persistent and influential affective-cognitive state that is not focused on a particular object, event, individual, or behavior. Vigor is characterized by a strong willingness to devote effort to work and persistence in the face of difficulties. Dedication refers to being strongly involved in the work and experiencing a sense of enthusiasm, inspiration, pride, challenge, and meaning. Absorption is characterized by being totally focused and happily immersed in the work, so that time passes quickly and one experiences displeasure at having to leave the job" (p.23).

To complement the concept of absorption, Seligman (2011) refers to this state of concentration as an optimal experience, which leads to a state of flow, in which the subject who experiences it reaches an optimal state of

creativity, productivity and well-being at the same time.

These dimensions: vigor, dedication, and absorption are evaluated through indicators that reflect high, good, and low levels, depending on the frequency of experience.

Academic performance

Explanatory or traditional models seek to find the factors that favor or limit academic achievement. According to García (2013), they are static since they consider performance as a product of learning and achievement due to factors that have an impact on the student and his or her achievements. One of the first models reported in the literature is that of Coleman, called Equality of educational opportunities (Coleman, 1966, in Flores-Crespo *et al*., 2017) which he points out as a relevant factor to determine academic performance in the socio-family context. This author defines academic achievement as information on learning achievements as a consequence of the educational opportunities to which he/she has access. This author broadens this perspective of analysis of academic performance by considering that individual characteristics are the potential, which will be developed thanks to factors related to the context, such as teacher-student, student-student interaction, family participation, and authorities, also including the methodological and pedagogical characteristics of the course, as well as the socioeconomic level. In this sense, "academic achievement is considered as the result of a complex process in which teacher, student, and context interact with specific roles and purposes" (p. 24).

Traditionally, academic performance is accepted as the result achieved by students in a given course, which is evidenced by Gimeno-Sacristán (1976), and which would represent the competencies acquired in a given course, under the evaluations considered pertinent by the teacher. In this sense, academic performance is the final quantitative result, which will allow identifying to a certain extent the level of achievement reached, about what was expected. The way to access the grades is through exams or evaluations, with determining criteria.

Among the models that refer to this variable, according to Rodríguez Espinar (1985) and Garanto et al. (1985) in Álvaro Page *et al*. (1990), the nature of the performance factors is considered, thus psychological, social, and didactic models are considered. Other models attribute performance to the school institution, so there are input-output, process-output, or input-process-output models, including the context. These are considered static models, which seek to find the factors that favor or limit academic achievement. They are, according to García and Palacios (1991).

On the other hand, there is a dynamic approach to academic performance. Gaviria (2011) offers an explanatory model in which he points out that academic performance is a consequence of two components: the first is intellectual capital, i.e., cognitive capacities, and the second is the effective time spent on learning, whether this is for work in class or outside it. His hypothesis considers that the confluences of both elements promote good academic performance, and understands academic performance as the result of a process in which the student is an active protagonist as part of a learning process in which the student's effort and abilities are oriented toward the achievement of the intended objective. In the same vein, Garbanzo (2007) defines performance as "the value attributed to the student's achievement in his or her academic performance, through the grades obtained. It almost always involves a quantitative evaluation of the student's achievement, whether satisfactory or not and implies dropout or academic success". From this, academic performance is evidenced in results, and these have a quantitative valuation that reflects the achievements during a given period, according to the standards or requirements of a given subject.

For the context concerning this study, the focus on academic performance as the effectiveness of the university's educational system acquires special relevance. Research on academic performance is a topic of widespread interest worldwide, and basically as a response to the need for improvements in the quality of university higher education, becoming an important factor for its measurement. The academic performance of

university students is an essential factor in the analysis of the issue of the quality of higher education since it is an indicator that allows an approximation of the educational reality. For this reason, the evaluation and grading process is mandatory, and among the student's duties is the approval of the corresponding subjects. The basic unit of measurement is the academic credit, which has different values according to the study plan of the career, which are prerequisites to continue with the professional training, such is that if the approval of certain courses is not achieved, the continuity could be limited arising actions such as transfers to other careers, to other universities, or even the dropout or desertion, and more particularly, the academic discharge, or the definitive withdrawal from the university, as in the case of the Peruvian regulations, by which a student cannot repeat more than three times the same course.

It is clear that to watch over academic performance is to take care of the academic formation and quality of the future professional, as well as institutional prestige. In the words of De Miguel *et al*. (2002), the academic performance of university students is the most important indicator when assessing the quality of higher university institutions, and defines it as a quantitative value achieved by a student in his or her academic performance, which denotes achievement in positive or negative terms, and implies academic success or failure.

Dimensions of academic performance

According to Santos and Vallelado (2012), students' academic performance involves the collection of information in a procedural or process evaluation, a final course evaluation, and an overall grade, such as a weighted average. However, in teaching practice, and research, the use of the final course grade and categorization by levels has been generalized as a dimension of analysis since it offers objective data relative to a single course. Thus, the dimension of the variable is the *final grade*, and its categories are *excellent level, good level, fair level, and low level.*

Importance of studying the academic performance

The measurement of learning is an important procedure within the teaching-learning process at any level and modality of studies. These not only reflect the student's learning, but also the quality of the service he/she receives, which is why it has become a very relevant variable at the time of evaluating the quality of organizations. At the same time, it is an indicator of the competencies acquired by the student, about the standards and profiles of their training. In the context of licensing and accreditation of universities and careers, academic performance is an important indicator that generates credibility, trust, and prestige for the institution. And, for students and graduates, a greater possibility of access to the labor market. It offers important information to provide feedback to the educational process and system (effectiveness), and provides information for decision making, to improve the quality of the educational offer, both at the pedagogical level, as well as other elements that provide basic conditions to enhance academic achievement.

Method

According to the classification offered by Carrasco (2006), the study is basic research since it is based on a theoretical framework intrinsic to it, and its purpose is to corroborate and/or increase scientific knowledge on the subject under study without contrasting it with practical aspects. According to its nature, it is quantitative research since it will have access to quantitative data, which will precisely indicate the characteristics of the variables under study. In addition, it is a non-experimental study, since for the analysis process no manipulation of any of the variables was performed, but rather the observation of the phenomena was carried out, as they are presented in reality (Hernández *et al*. 2014), observing the behavior of the variables and their dimensions, about the selected sample. Likewise, according to the objective, the research is framed in the descriptive-correlational, since its purpose was to know each variable, describe its components, to then analyze the two variables, seeking to know if there is a significant relationship between them.

Finally, according to the number of times the data or information was collected, it is a transversal type of research, since the data obtained corresponds to a single moment, without the need to follow up on those evaluated.

Sample

To establish the research sample and with the intention of not varying the internal constitution of the population, a stratified sample was made to determine the number corresponding to each specialty, and within each group, the simple random sampling technique was applied, taking a representative part of the total population, from which the necessary information was collected for statistical inference. The sample was constituted randomly among all the members of the population that met the inclusion criteria, and all had the same possibility of participating in the selection of the sample. This type of sampling is objective and avoids any possibility of researcher bias, providing a lower margin of error and therefore greater reliability of the results obtained. This selection will also make it possible to observe the results without considering the individuals, which is irrelevant for the research, since the results obtained are of general order and not particular.

A confidence level of 95% (Z), the probability (0.5), and error tolerance of 5% were considered, so the sample size was 87 students, distributed as follows:

Table 1

Structure of the sample

Specialty	**Population**	**%**	**Sample**	**%**
Primary	40	36	31	36
Language and Literature	30	27	24	27
English	41	37	32	37
Total	28	100	87	100

Instruments

About the student engagement variable, the technique used was the survey and the instrument used was the Academic Engagement Questionnaire for Students (UWES-S) by Schaufeli and Bakker (2011), which is a descriptive questionnaire that can be self-administered. The UWES-S has three versions: the original version of 17 items, and the reduced versions of 15 and 9 items. In the case of the present study, the original version was chosen, that is, the 17-item version. Each item offers statements related to the domains of the variable: vigor, absorption, and dedication, and the student must offer his or her response based on the frequency of the action, or the one that is closest to personal judgment, marking one of the alternatives offered on a Likert scale (0 = Not at all, 1 = Few times in the cycle, 2 = Once a month, 3 = Few times a month, 4 = Once a week, 5 = Few times a week, 6 = Every day, 7 = Every day).

It is important to note that to avoid inducing or suggesting a direct relationship of the answers with engagement, the assessment has been masked, which in the author's version is included, avoiding the use of the words engagement and commitment as part of the questionnaire, instead of using a neutral title "Well-being and Work Survey" with the acronym UWES-S in parentheses. The properties of the questionnaire have been cross-culturally validated in English, Dutch, and Spanish. The psychometric analysis of the questionnaire is carried out in the first instance at the University of Utrecht (The Netherlands), by

its author. In Latin America, validations have been carried out in several countries. Spontón *et al*. (2012), cited by Laureano, *et al*., (2020) in Argentina, Oramas *et al*. (2014) in Cuba, Rodríguez *et al*. (2014) in Puerto Rico, Gómez *et al*. (2019) in Uruguay, and Sponton *et al*. (2012), cited by Laureano *et al*. (2020) in Argentina. In Peru, the UWES-S-17 has been validated in Trujillo (Romero, 2018). The authors agreed that the three-factor model of academic engagement had a better fit for the data, showing that the scale has the necessary psychometric properties to be mentioned as valid and reliable for measuring engagement in Hispanic samples, which is why it is the most widely used instrument in research on the subject, and also supports the choice of this instrument.

Regarding the academic performance variable, to access the final grade of the students, documentary analysis was used as a technique, for the collection of information. In this case, these are official documents, published at the end of the cycle in the Academic Information System (AIS), which at the same time are private, so that the privacy of the students was guaranteed, as regards the handling of the information with an anonymous character, for the handling and publication of the data and results obtained. The instrument to be used for the documentary analysis is the final evaluation report, which consists of a digitalized text retrieved from the AIS that consists of an informative part with the data of each student, as well as the final grade obtained, and the final consolidated grade.

Procedure

The data obtained underwent a process of tabulation and analysis using descriptive and inferential statistics. The former is for frequency tabulation and the latter is for the interpretation of results. At the descriptive level, the mean was obtained as the central tendency statistic and the standard deviation as the dispersion statistic. Likewise, Spearman's correlation coefficient was used to validate the hypothesis with a significance level of 5%, given by the Kolmogorov test with a significance level of less than 5%, determining the relationship between a variable. Likewise, the analysis process involved the use of the SPSS v.25 programs for data exploration, through descriptive analysis and data visualization for each variable, allowing the preparation of tables, graphs, and figures and analysis through statistical hypothesis tests.

Results

The objective of this research was to determine whether there is a relationship between student engagement and the academic performance of students entering university in a remote education context. To achieve this purpose, hypotheses on each of the components of student engagement, i.e., vigor, dedication, and absorption, were proposed.

In this sense, the information obtained after processing and analysis leads to determining whether there is a relationship between the variables under study, identifying the components of student commitment that have a greater relationship with performance, and at the same time, the specialties in which this relationship is greater. First, descriptive statistics are offered, and then the analysis of the correlation of variables through statistical significance will be reported.

Table 2

Means and variance of the variable student engagement

		Vigor	Dedication	Absorption	Student engagement	Performance
English	Valid	32	32	32	32	32

	Lost	0	0	0	0	0
	Mean	5.1875	5.2813	5.5625	5.3438	3.2813
	Dev. Deviation	.96512	1.02342	.61892	.86544	.92403
Language and Literature	Valid	24	24	24	24	24
	Lost	0	0	0	0	0
	Mean	5.1667	5.5000	5.4583	5.2917	3.1250
	Dev. Deviation	.96309	.93250	1.06237	1.04170	.74089
Primary	Valid	31	31	31	31	31
	Lost	0	0	0	0	0
	Mean	5.2581	5.2581	5.2903	5.2258	3.0968
	Dev. Deviation	.89322	.77321	.78288	.76200	.59749

The means in relation to the commitment variable are above 5, which shows that they are at a high level, with non-significant differences in the groups evaluated, as well as the deviation.

Table 3

Results on Student Engagement indicators.

Specialty	**Primary**		**Language and literature**		**English**	
VIGOR	**n°**	**%**	**n°**	**%**	**n°**	**%**
Few times a month	2	6.5	1	4.2	2	6.3
Once a week	3	9.7	3	12.5	6	18.8
Few times a week	11	35.5	10	41.7	8	25.0
Every day	15	48.4	10	41.7	16	50.0
DEDICACIÓN	**n°**	**%**	**n°**	**%**	**n°**	**%**
Few times a month	1	3.2	1	4.2	3	9.4
Once a week	3	9.7	1	4.2	4	12.5
Few times a week	14	45.2	6	25.0	6	18.8
Every day	13	41.9	16	66.7	19	59.4
ABSORCIÓN	**n°**	**%**	**n°**	**%**	**n°**	**%**
A few times a month	1	3.2	0	0	0	0

Once a week	3	9.7	1	4.2	2	6.3
Few times a week	13	41.9	8	33.3	10	31.3
Every day	14	45.2	15	62.5	20	62.5

Note. The table shows the number of responses in each of the categories of the Likert scale of the instrument.

The vigor component is most frequently experienced by 16 English students (50%) who experience it every day. In second place is Primary with 15 students (48.4%) and in third place in Language and Literature with 10 students (41.7) which, in this case, does not reach a differentiating value since in the same percentage the students of the specialty indicate experiencing vigor a few times a week.

Regarding the experience of the dedication component, Language and Literature reach the highest level with 19 students (66.7%), followed by English with 16 students (59.4%), and finally the Primary specialty with 13 students (41.9%). In terms of dedication, it can be noted that English and Language and Literature have the highest number of students in the category of experiencing the component every day, unlike Primary, which has the highest number of students in the category of experiencing it only a few times.

About the absorption component, the highest values are found in Language and Literature and English (62.5%) and Primary 45.2%. The results show that this component is experienced mostly by two of the groups, being the third, Primary, the one that not only has the lowest number, but the experience is very close between the categories a few times and every day. Even so, it should be noted that absorption is the only component that the three specialties share the most experience.

In terms of vigor, it can be observed that in the Primary and English specialties, the highest percentage of students is in the high range, while in Language and Literature it is in the medium range. On the other hand, in the Dedication dimension, it is found that in the primary specialty the percentage accumulates in the medium range, and for the other specialties it is higher; in the same sense, the Absorption dimension is in the medium range, while in Language and Literature it is in the medium range.

Table 4

Results in academic performance indicators

Specialty	**Primary**		**Language and literature**		**English**	
	n°	%	n°	%	n°	%
Disapproved	0	0	1	4,2	2	6,3
Approved	4	12,9	2	8,3	4	12,5
Good	20	**64,5**	14	**58,3**	9	28,1
Very Good	7	22,6	7	29,2	17	**53,1**

Note. The table shows the frequency in each category.

About the academic performance variable, the results show that, in the very good category, it is the English specialty that obtains the highest

results, with 17 (53.1%) students in this category, followed by Language and Literature and Elementary, each with 7 students, representing 29.2% and 22.6%, respectively.

It can be concluded that, in the results of academic performance, most of the students in the Primary specialty have a Good academic performance, in Language and Literature in Good and Very Good, and the English specialty, Very Good.

Hypothesis testing

To calculate Pearson's correlation coefficient, SPSS-25 was used, establishing the existing relationship between the study variables, in addition to making visible the type and level of relationship between the specialties: Primary, Language and Literature, and English.

About the general hypotheses, the findings are presented in Table 5.

H0 = Student commitment has no significant relationship with academic achievement, in students of the Faculty of Education of the National University of Cajamarca, 2021.

H1 = Student commitment has a significant relationship with academic performance, in students of the Faculty of Education of the Universidad Nacional de Cajamarca, 2021.

Table 5

Correlation between variables: student engagement and academic achievement

Student engagement Academic Performance	Primary	Language and Literature	English	Correlation
Pearson	,829	,739	,843	,786
Sig. (bilateral)	,000	,000	,000	,000
N	31	24	32	87

The results indicate that there is a significant relationship (p-value = 0.000) between student engagement and academic performance of the students of the Faculty of Education of the Universidad Nacional de Cajamarca, 2021.

The relationship between the variables is significant and more consistent in the English major (0.843) and the lowest is in Language and Literature (0.739).

It can be inferred then that, if the students assume commitment involving themselves from the cognitive, emotional, and attitudinal aspects of their academic tasks, then the learning achievements are better reaching higher indexes in academic performance.

Meanwhile, concerning the specific hypotheses, the results are shown as follows:

First specific hypothesis

H0 = There is no significant relationship between the vigor dimension and academic performance in students of the Faculty of Education of the Universidad Nacional de Cajamarca, 2021.

H1 = There is a significant relationship between the vigor dimension and academic performance in students of the Faculty of Education of the Universidad Nacional de Cajamarca, 2021.

Table 6

Correlations between Vigor and academic performance

Vigor Dimension Academic performance	Primary	Language and Literature	English	Correlation

Pearson	,639	,701	,849	,742
Sig. (bilateral)	,000	,000	,000	,000
N	31	24	32	87

The Pearson correlation coefficient allows assuring that there is a significant relationship (p-value = 0.000 < 0.05) and of good level (0.742) between the Vigor dimension with the Academic Performance in the students of the Faculty of Education of the National University of Cajamarca, 2021.

In the relationship between Vigor and Academic Performance, it is observed that the English program has a better correlation (0.849) and the Primary specialty is lower than that relationship (0.639), but it is still at a moderate level.

Thus, the research hypothesis is tested, finding that the students of the different specialties have a good level of energy and resilience to perform the educational tasks, so that on average their academic performance is in the levels of good and very good, highlighting, in this case, the English specialty.

Second specific hypothesis

H0 = There is no significant relationship between the dedication dimension and academic performance in students of the Faculty of Education of the Universidad Nacional de Cajamarca, 2021.

H1 = There is a significant relationship between the dedication dimension and academic performance in students of the Faculty of Education of the Universidad Nacional de Cajamarca, 2021.

Table 7

Correlations between dedication and academic performance

Dimension Dedication / Academic Performance	**Primary**	**Language and Literature**	**English**	**Correlation**
Pearson	.666	.661	.732	.677
Sig. (bilateral)	.000	.000	.000	.000
N	31	24	32	87

The Pearson correlation coefficient allows assuring that there is a significant relationship (p-value = 0.000 < 0.05) and good level (0.677) between the dimension Dedication with Academic Performance in the students of the Faculty of Education of the National University of Cajamarca, 2021.

In this sense, the research hypothesis is tested, finding that the students of the different specialties are inspired and show enthusiasm when performing educational tasks, so that on average their academic performance is in the levels of good and very good, highlighting, this case, the specialty of English.

Third specific hypothesis

H0 = There is no significant relationship between the absorption dimension and academic performance in students of the Faculty of Education of the Universidad Nacional de Cajamarca, 2021.

H1 = There is a significant relationship between the absorption dimension and academic performance in students of the Faculty of Education of the Universidad Nacional de Cajamarca, 2021.

Table 8
Correlations between absorption and academic performance

Absorption Dimension Academic performance	Primary	Language and Literature	English	Correlation
Pearson	.651	.697	.673	.653
Sig. (bilateral)	.000	.000	.000	.000
N	31	24	32	87

The Pearson correlation coefficient allows assuring that there is a significant relationship (p-value = 0.000 < 0.05) and good level (0.653) between the Absorption dimension with the Academic Performance of the students of the Faculty of Education of the National University of Cajamarca, 2021.

Finally, the research hypothesis is tested, finding that the students of the different specialties are concentrated when performing educational tasks, so that on average their academic performance is in the good and very good levels, highlighting in this case the specialty of English.

Discussion and conclusions

One of the purposes of this study was to contribute to the existing body of knowledge on the management of educational quality in a virtual education context by exploring a variable of a personal nature, such as student commitment, related to university retention and educational quality, evidenced in the external evaluation and the consequent accreditation, training "high-quality professionals in an integral manner and with a full sense of social responsibility according to the needs of the country" El Peruano (2014), and the demands of society require not only professionals with technical and cognitive abilities; but with soft skills, capable of exercising leadership and transforming society. Chiavenato (2015) includes among them the commitment.

In agreement with the findings of López-Aguilar *et al*, (2021), who found that higher scores on the student engagement variable component led students to achieve higher grades and therefore greater possibility of achieving higher academic achievement and the realization of their goals. The present study shows that the students of the three specialties present a high level of commitment and at the same time good academic results, which leads to conclude that the student commitment variable, as in face-to-face contexts, is correlated with academic performance, and is a predictor of academic success in virtual contexts.

For their part, Chávez-Hernández *et al*. (2018) found a greater positive correlation between the factors of Vigor and Absorption; however, such results, in this study are only replicated in the primary group, which is the group that presents a lower correlation compared to the groups of English and Language and Literature, in which the dimensions of dedication and absorption stand out, that is, that students who show enthusiasm, inspiration, pride, and high concentration and are immersed in educational activities are those who achieve greater commitment and at the same time better grades. In this context, it is concluded that dedication and absorption are components that correlate to a greater extent with academic performance, and therefore, require consideration from university management to take advantage of them as possible protective factors against university dropout or desertion.

However, these results differ from another research conducted in Peru (Steindl, 2019) in which the author, when evaluating the relationship between engagement and academic performance in blended and flipped classroom university courses, finds that there is no relationship between both variables, pointing out that it is difficult to establish the relationship between engagement and performance if academic performance is only evaluated by a grade. However, the limitation of this study is the time, which was only four weeks, insufficient time to determine significant

differences related to engagement.

Finally, even though there are no significant differences in the groups evaluated, the primary school group shows comparatively to the other two specialties that it experiences less vigor, dedication, and absorption. It is likely that there are factors involved in the increase of commitment and deepening in these aspects represents a pending task, and a working hypothesis could well be the professional vocation, since components such as persistence, enthusiasm, and concentration are mostly experienced by students who study the chosen career by personal preference (Navarro and Soler, 2014; Rivas, 1990; Rivas *et al*., 2008), observing lower results in students whose professional choice is determined by other factors (Mosteiro and Porto, 2000) such as need or family demands. In this sense, it is necessary to identify these factors and to extend the study to different careers to carry out a comparative study to determine the factors involved in commitment, concerning motivation and professional vocation.

On the other hand, it is necessary to recognize that, in modern educational institutions, there is interest in the management of human talent, and in this regard, areas of student mentoring, accompaniment, and socioemotional attention are contemplated, as well as programs that promote, among other things, the adaptation to the new educational environment, the involvement of students with their personal and professional-training objectives, and the identity with the organization that houses them. However, in public universities, academic work is advocated exclusively to the detriment of personal development, which has an impact on the final results and achievements since it will have an impact on the successful completion of the career, and subsequently on employability. Recognizing these shortcomings will allow a proactive action to achieve the purposes and purpose of the university, as an institution that contributes to personal, professional, and social development. Improving quality is a challenge that is not enough to determine the variables involved, the challenge is to take action to implement strategies that promote and enhance them.

Recommendations

Having concluded that student engagement is correlated with academic performance in the context of remote teaching, and considering that this modality is still emerging as a field of research, and as a teaching strategy in the university, it is advisable to employ it within the management strategies, processes that help to enhance student engagement as a variable linked to retention and university quality. To this end, it is necessary to implement strategic processes that include attention to human talent management to enhance the empowerment and development of student leadership from within the university.

In the same way, consider Absorption, a domain linked to creativity, productivity, and well-being, so it is advisable to take advantage of it as a potential source for innovation in the different subjects and specialties.

Likewise, the results obtained represent a basis for the expansion of research to determine the differentiating aspects in the specialties of the Education career, and other careers, so that from the Educational Model, processes that favor student commitment can be homogenized.

Conflict of interest

No conflicts of interest

References

[1] Alvaro Page, M., Bueno Monreal, M.J.; Calleja Sopeña, J.A.; Cerdán Victoria, J., Echevarría Cubillas, M.J. et al; (1990) *Hacia un modelo causal del rendimiento académico. Centro de Publicaciones del Ministerio de Educación y Ciencia:* Madrid

[2] Arguedas Negrini, I. (2010).I*nvolucramiento De Los Estudiantes Y Los Estudiantes En El Proceso Educativo.* Revista Iberoamericana Sobre Calidad, Eficacia Y Cambio En Educación REICE, 63-78.

[3] Astin, Alexander W. (1984). *Student involvement: A developmental theory for higher education. Journal of College Student Personnel*. Recuperado de

https://www.researchgate.net/publication/220017441_Student_Involvement_A_Development_Theory_for_Higher_Education

[4] Cabrera, V. A. (2005). El concepto de calidad en educación universitaria: Clave para el logro de la competitividad institucional. *Revista Iberoamericana de Educación*. doi:10.35362/rie36122886

[5] Carrazco Díaz, S.(2006). *Metodología de la Investigación Científica.Pautas metodológicas para diseñar y elaborar el proyecto de investigación.* Lima: San Marcos.

[6] Chávez-Hernández, N.; Lugardo-Bravo, M.T.; Retes-Mantilla, R.F. (2018). *Análisis del engagement académico en estudiantes de las carreras de las carreras de administración y gestión empresarial.* Universidad Autónoma de Nuevo León.

[7] De Miguel, M., Apocada, P., Arias, J., Escudero, T., Rodríguez, S. & Vidal, J. (2002). *Evaluación del rendimiento en la enseñanza superior: comparación de resultados entre alumnos procedentes de la LOGSE y del COU.* Revista Investigación Educativa, 20 (2), 357-383.

[8] El Peruano (2014). Normas Legales. Congreso de la República. Lima, Perú.

[9] Flores-Crespo, P., Martínez_Riso, F., Mendoza, D. C., Márquez, A., & Sandoval, A. (2017). *Educación y desigualdad: a 50 años del informe.* Potosí: COMIE.

[10] Garbanzo Vargas, G. M. (2007). Factores asociados al rendimiento académico en estudiantes universitarios, una reflexión desde la calidad de la educación superior pública *Educación*, 43-63.

[11] García Gonzales, C. d. M. (2013). *Estudio de la relación entre el engagement y la rotación de personal en una cadena de cafeterías, ubicadas en la ciudad de Xalapa-Enríquez, Veracruz, México, en el periodo octubre de 2012-marzo de 2013.* México: Universidad Veracruzana. recuperado de de https://cdigital.uv.mx/bitstream/handle/123456789/3.

[12] Gaviria, J.L. (2011) c*onferencia: Hacia un modelo marco del rendimiento académico. ¿Realmente podemos extraer conclusiones de las evaluaciones internacionales?*, Bebalmádena, Málaga, XXXIX congreso Nacional de la Enseñanza Privada.

[13] Gimeno Sacristán, J. (1976). *Autoconcepto, Sociabilidad y rendimiento escolar.* Instituto Nacional de Educación. Madrid

[14] Hernández Sampieri, R., & Fernández Collado, C. y. (2014). *Investigación científica.* México: Mc Graw Hill.

[15] Ievgeniia Kuzminykh; Bogdan Ghita; Hannan Xiao (2021). *The Relationship Between Student Engagement and Academic Performance in Online Education.* ICSET 2021: 2021 5th International Conference on E-Society, E-Education and E-TechnologyAugust 2021 Pages 97–101https://doi.org/10.1145/3485768.3485796javascript:void(0);

[16] Jimenez, G. E. (2016). Concepto de excelencia en Educación Superior Universitaria. *Educación médica*, 83-87.

[17] Kahn, W. A. (30 de Noviembre de 2017). *Psychological Conditions of Personal Engagement and Disengagement at Work*. Recuperado de https://doi.org/10.5465/256287

[18] López-Aguilar, D., Alvarez-Pérez, P., & Garcés-Delgado, Y. (2021). El engagement académico y su incidencia en el rendimiento del alumnado de grado de la Universidad de La Laguna. RELIEVE. Revista Electrónica de Investigación y Evaluación Educativa, vol. 27, núm. 1, 2021. Universitat de València. Redalyc.org. https://doi.org/10.30827/relieve.v27i1.21169

[19] Ministerio de Educación. (2014). *Ley Universitaria N| 30220.* Lima: Minedu.

[20] Mosteiro García, M.J.; Porto Castro A.M.; (2000). Los motivos de elección de estudios en alumnos y alumnas de universidad. *Innovación educativa*, 121 - 132.

[21] OCDE. (2020). *Education at a Glance 2020.* París: OECD. Obtenido de https://www.oecd.org/education/education-at-a-glance/

[22] Ochoa Tataje, J. J. (2019). *Gestión del compromiso estudiantil en el rendimiento académico en la Facultad de odontología de la UNMSM.* UCV. Recuperado de https://repositorio.ucv.edu.pe/handle/20.500.12692/36377

[23] Ordaz Monroy, A. A., & García Robelo, O. (2018). E*l Estudio Del Rendimiento Académico En Nivel Universitario. Aproximaciones Al Estado Del Conocimiento.* Congreso CLABES. Panamá: Universidad Tecnológica de Panamá.

[24] Pérez, P. P. (2010). Propiedades psicométricas de la escala de compromiso estudiantil en estudiantes de psicología. *Revista Educativa Ciencias de la Salud*, 128 - 133.

[25] Ramírez Yparraguirre, M. Y. (2017). *Factores individuales y de contexto que inciden en la deserción universitaria de los estudiantes del Programa Beca 18.* Lima: UCV.

[26] Santos Valle, Ma.y Vallelado, E. (2012). Algunas dimensiones relacionadas con el rendimiento académico de estudiantes de Administración y Dirección de Empresas. Universidad de Valladolid: España. doi:10.11144/Javeriana.UPSY12-3.adrr

[27] Seligman, M. E. P. (2011). La vida que florece. Barcelona: Ediciones B.

[28] Seligman, M.E.P. Ernst, R.M. Gillham, J., Reivich, K. y Linkins, M. (2009). Positive education: positive psychology and classroom interventions. Oxford Review of Education, 35(3), 203-311.

[29] Schaufeli, W. B., Salanova, M.; Gonzáles-Romá, V., & Bakker, A. B. (2002). *The measurement of engagement and burnout: A two sample confirmatory factor analytic approach*. Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being, 3(1), 71–92. https://doi.org/10.1023/A:1015630930326

[30] Steindl, A. M. (2019). *Estudio comparativo del compromiso y rendimiento académico de estudiantes.* Lima: PUCP.

[31] Sunedu. (Noviembre de 2015). *www.sunedu.gob.pe*. Obtenido de https://www.sunedu.gob.pe/condiciones-basicas-de-calidad-2/

[32] Sustaeta, P. N., & Julve, I. S. (2014). Las motivaciones de la elección de carrera por los estudiante univesitarios. *RADE Revista de Sociología*, 61-81.

[33] Yáñez, Lozan de Gálvez. (2020). *Los cursos virtuales no son exitosos para todos: Se requiere madurez y compromiso.* Lima: PUCP. Recuperado de https://puntoedu.pucp.edu.pe/entrevistas/cursos-virtuales-pucp/