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Challenges to Academic Engagement in Higher Education: An Analysis Based on Student Assessment

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ABSTRACT

The aim of the text is to discuss, based on a survey of Higher Education students, academic satisfaction as a factor for promoting academic engagement. In addition, it examined sociodemographic factors capable of affecting students' academic satisfaction. The survey was conducted using a virtual questionnaire that had 320 valid responses of students from public and private institutions. In the analysis of the data obtained, three types of statistical tests were used: descriptive statistics, multivariate analysis of variance (MANOVA - Multivariate Analysis of Variance) and analysis of variance (ANOVA). The results showed that, in general, students feel academically satisfied with the training opportunities in Higher Education and that the sociodemographic variables, completion of high school, exercise of labor activity and exercise of research activity in the Education Institution affect, significantly, academic satisfaction. These results are important, because based on information about sociodemographic factors of their students, Higher Education Institutions can promote efficient actions to promote academic satisfaction and the consequent engagement of the student, through the generation of an educational environment capable of generate meaning and bond.

KEYWORDS

Higher education. Learning. Academic engagement. University student.

Desafios ao Engajamento Acadêmico no Ensino Superior: Uma Análise a Partir da Avaliação Discente

RESUMO

O objetivo do texto consiste em discutir, a partir de uma pesquisa com estudantes da Educação Superior, a satisfação acadêmica como fator para a promoção do engajamento acadêmico. Além disso, examinou fatores sociodemográficos capazes de afetar a satisfação acadêmica dos alunos. A pesquisa foi realizada com a utilização de um questionário virtual que contou com 320 respostas válidas de estudantes de instituições públicas e privadas. Na análise dos dados, foram utilizados três tipos de exames estatísticos: estatística descritiva, análise de variância multivariada (MANOVA - *Multivariate Analysis of Variance*) e análise de variância (ANOVA). Os resultados evidenciaram que, de modo geral, os/as estudantes sentem-se satisfeitos(a) academicamente com as oportunidades formativas no ensino superior e que as variáveis sociodemográficas conclusão do ensino médio, exercício de atividade laboral e exercício de atividade de pesquisa na instituição de ensino afetam, de maneira significativa, a satisfação acadêmica. Estes resultados são importantes, pois com base nas informações sobre fatores sociodemográficos de seus alunos, as Instituições de Ensino Superior podem promover ações eficientes para a promoção da satisfação acadêmica e o consequente engajamento do/a estudante, por meio de da geração de um ambiente educacional capaz de gerar sentido e vínculo.

PALAVRAS-CHAVE

Ensino superior. Aprendizagem. Engajamento acadêmico. Estudante universitário.

Desafíos para el Compromiso Académico en la Educación Superior: Un Análisis Basado en la Evaluación de los Estudiantes

RESUMEN

El objetivo del texto es discutir, a partir de una encuesta a estudiantes de Educación Superior, la satisfacción académica como factor de promoción del compromiso académico. Además, examinó factores sociodemográficos capaces de afectar la satisfacción académica de los estudiantes. La encuesta se realizó mediante un cuestionario virtual que contó con 320 respuestas válidas de estudiantes de instituciones públicas y privadas. En el análisis de los datos obtenidos se utilizaron tres tipos de pruebas estadísticas: estadística descriptiva, análisis de varianza multivariado (MANOVA - Análisis de varianza multivariante) y análisis de varianza (ANOVA). Los resultados mostraron que, en general, los estudiantes se sienten satisfechos académicamente con las oportunidades de formación en la Educación Superior y que las variables sociodemográficas, finalización del bachillerato, ejercicio de la actividad laboral y ejercicio de la actividad investigadora en la Institución Educativa inciden, de manera significativa, en la satisfacción académica. Estos resultados son importantes, porque a partir de la información sobre los factores sociodemográficos de sus estudiantes, las Instituciones de Educación Superior pueden promover acciones eficientes para promover la satisfacción académica y el consiguiente compromiso del estudiante, a través de la generación de un ambiente educativo capaz de generar sentido y vínculo.

PALABRAS CLAVE

Enseñanza superior. Aprendizaje. Compromiso académico. Estudiante Universtário.

Introduction

When entering Higher Education Institutions (HEIs), the student is exposed to factors that cause various personal changes, considering that training dynamics tend to mobilize, to a greater or lesser extent, aspects of their intellectual, affective and professional development. In this direction, Dias Sobrinho (2015) highlights that, in a critical conception of Higher Education, HEIs have as their objective the formation of individuals with a high moral, cultural and political sense, for the purpose of contribute to solving socially referenced collective problems.

Thereby, considering the increase in the population of higher education students resulting from policies of diversification and institutional flexibility, as well of student funding, a population that has heterogeneous sociodemographic characteristics, it is necessary for HEIs to guarantee a favorable pedagogical environment that encompasses aspects such as the psychological well-being of students, social integration, security, protection and enhancement of student repertoires and life projects, with a view to promoting learning according to the curriculum design of each course and the broader principles of the institution itself (BEZUIDENHOUT; DE JAGER, 2014; GIBSON, 2010; VAN DEUREN; LHADEN, 2017). On the subject, Coates (2007) emphasizes that there is a growing recognition of the importance of understanding how students are involved and their consequent engagement in academic activities through the analysis of their learning experiences.

We highlight that several studies converge to the recognition of the need to better understand how to promote academic engagement in new institutional scenarios, considering that a better understanding of which factors contribute to academic engagement can bring several contributions to the development of projects by the HEIs with a view to the development of academic success through the promotion of learning (OBLINGER; OBLINGER, 2005; RUDDUCK, 2007).

Academic engagement is a process composed of two distinct and inseparable variable's strands; the first, centered on the student, which must demand time and effort dedicated to learning, and the second, centered on Educational Institutions, which must provide the means and resources to promote learning as an active and participatory process. Complementing the subject, Wang (2014) emphasizes that because it is a variable involving two perspectives - that of the Teaching Institution, with its methodologies and resources, and that of the student, which includes self-regulation, cognition and meaning construction capacities - academic engagement is a key factor for the promotion of learning and the consequent improvement of teaching quality.

In this direction, several researchers argue that positive emotional experiences are important for academic engagement, given that academic engagement goes beyond simple student involvement or participation in scheduled tasks, as it also involves the student's

perception of feeling satisfied to be part of the learning community (MEYER; TURNER, 2006; RUDDUCK, 2007).

Thus, in addition to a good infrastructure, evaluative methodology and didactic processes provided by the HEI, it is necessary to assess whether the experiences lived in the academic environment promote a feeling of academic satisfaction. Strengthening this idea, Akpan and Umobong (2013) reported that academically satisfied students were more engaged, whereas Wang and Eccles (2013) reported that academic environments capable of supporting students' needs promoted greater engagement.

Academic satisfaction is understood as a psychological state arising from the student's expectations with the academic experience, in addition it is considered a dynamic construct because it is affected both by the characteristics of this student and by his/her educational experience, and is also related to with the academic environment, quality of teaching, curriculum, etc. (ELLIOTT; SHIN, 2002; JARADEEN ET AL., 2012; ASTIN, 1993).

From these considerations, this paper proposes to deepen knowledge about academic engagement, presenting academic satisfaction as a challenge for its promotion. In addition, it examines, through statistical analysis, sociodemographic factors that can affect students academic satisfaction.

In order to achieve the objectives of this study, a questionnaire was applied in electronic format, which obtained 320 valid responses and was ratified through the measurement of Cronbach's alpha coefficient. In addition to this analysis, the data obtained were submitted to three types of statistical studies: descriptive statistics, multivariate analysis of variance (MANOVA – Multivariate Analysis of Variance) and analysis of variance (ANOVA).

Conceptual aspects about Academic Engagement and Academic Satisfaction

The definition of academic engagement is based on the assumption that students learn from their experiences as contexts for the production of meaning in what is done, as well as the influence of HEI practices and policies on the academic trajectory of students (at). In addition, academic engagement involves all organizational aspects of the educational institution, encompassing the level of interaction between students and their peers and between students and faculty (KUH, 2005, 2009; MCCLENNEY; MARTI; ADKINS, 2012).

Academic engagement is a process composed and represented by two perspectives: a) from the perspective of the student, who must put time and effort into academic activities and; b) from the perspective of the Educational Institution, which must provide the means, resources and other elements necessary for the student to participate and benefit from academic activities. BARKLEY, 2010; KUH, 2009; ASTIN, 1999).

Academic engagement is a process that demands not only the student's effort and motivation as a prerequisite for learning, but also depends on the efforts of the HEIs. Thus, it is a process that comes from the synergy of these two poles. About this theme, Kuh (2009) and Costa (2017) mention that academic engagement is a process that goes beyond simple student participation, as it presents itself as a complex process that encompasses factors inherent to individuals as participants/institutional subjects, as well as it also encompasses the way in which the actions of HEIs develop experiences of promoting and supporting learning.

We highlight that academic engagement involves at least three dimensions (SKINNER ET AL., 2009; CHARLOT, 2015; MUTISYA; DINGA; KINAI, 2019):

- a) Behavioral dimension - concerns observable practices and actions demonstrated by students during the learning process, such as, for example, commitment to completing tasks, active participation in meeting deadlines, delivery of work and related tasks;
- b) Affective or emotional dimension - refers to emotional involvement and represents feelings of identification and affective connection of individuals with the educational institution and with the learning process. This dimension is linked to the identification of belonging and levels of attachment that individuals experience during the learning process, as sources of meaning production for what is learned and why it is learned;
- c) Cognitive dimension - alludes to the individual's intellectual effort spent on learning activities.

By contemplating three dimensions, academic engagement cannot be thought of as an exclusive problem of the student, or neither belonging only to the educational institution, given that these variables acting in isolation are not capable of promoting it (TROWLER, 2010).

In this direction, Vitória et al. (2018) highlight that educational institutions have given more emphasis to the cognitive dimension. In other words, they consider more in the performance patterns in curricular activities. However, by emphasizing only the cognitive dimension, there is a risk of provoking apathy, repulsion and boredom in students. This is because a good infrastructure, although desirable, does not imply the creation of learning environments (behavioral dimension) nor the identification of the student with the institutional routine built in the relationship with their spaces, times and subjects (affective dimension) which are relevant elements for engagement.

In this sense, Kampff, Ramirez and Amorim (2018) consider that the nature of the student's academic experiences can make an HEI a place and/or a non-place, according to the conception of anthropological place proposed by Augé (2010; 2012). In this conception, place is defined as an identity, historical and relational space or an environment contained by

feelings, experiences, bonds and meanings; the non-place is an environment in which there are no lasting or binding social relationships. On the subject, we emphasized that what differentiates the non-place from the place is the process of constitution, as both are social constructions, however, the non-place is the absence of the place itself (CASTROGIOVANNI, 2007).

Baitello Jr. (2008) argues that human beings are prone to favor places where the realization of bonds is favorable, considering that, due to their incompleteness, individuals depend on the bonds established throughout life. This implies that HEIs must promote actions and resources so that the academic environment is recognized as a place by students, thus allowing the creation of meaning and bond, as well as an engagement that can positively influence academic performance and permanence. of the student in the HEI (GUERREIRO-CASANOVA; POLYDORO, 2010; ASTIN, 1999).

Academic satisfaction is defined as a psychological state resulting from the confirmation of the student's expectations with the experience in the academic trajectory (PENNINGTON; ZVONKOVIC; WILSON, 1989; FADEL ET AL., 2018; JARADEEN ET AL., 2012). It is noteworthy that academic satisfaction is interconnected with motivation and the meaning of learning and constitutes a dynamic process, which can be influenced by both the characteristics of the institution and the way in which students perceive the educational environment. and participates in training situations. (SINGH; SINGH; SINGH, 2012; CHEN; LO, 2012; KANTEK; KAZANCI, 2012).

Under this perception, the student's judgment is shaped according to his/her judgment about the institutional environment that characterizes the HEI. If there is a mismatch in the student's expectations regarding the training opportunities and institutional context provided by the HEI, it can lead to a reduction in engagement with the institution and consequent abandonment of the course.

About this question, Silva, Rocha and Finelli (2015) argue that the understanding of student academic satisfaction in higher education is important and useful, because the HEI can review its norms, planning and intervention strategies aimed at promoting student success in terms of quality of education and retention of these students.

Schleich (2006) highlights that the investigation of academic satisfaction emerges as an important point in the analysis of the effectiveness of HEIs and their educational contexts, requiring institutions to meet the needs of their students, thus collaborating to improve the educational process. Finellil, Alkmim and Sena (2017) highlight that academic satisfaction is related to a series of factors involved in the context of Higher Education, such as student learning and development in the face of the organizational and didactic choices of the HEI. This influences him/her in the sense of recognizing himself/herself capable, or not, for the future challenges.

The student's academic satisfaction influences his academic trajectory and its

importance is given by the fact that HEIs and professors can, through the knowledge of this factor, analyze their own organizational and didactic processes, as well as they can analyze if their facilities are contributing to the promotion of academic engagement.

Some research indicates that academic satisfaction has a positive relationship with learning (COLE ET AL. 2014) and promotes the reduction of attitudinal problems (BAKER; MAUPIN, 2009). In their research on academic satisfaction and student performance, Lin, Salazar and Wu (2019) showed a positive relationship between these variables, emphasizing that student satisfaction also affects the level of qualification, compromising the development of professional skills and the its community action.

In summary, these notes indicate that academic satisfaction arising from the students' experiences is an important variable in the evaluation of the quality of the processes developed by the HEIs, both in the organizational and didactic scopes, since they are significant vectors for motivation and consequent academic engagement. , constituting an important factor in promoting learning.

Metodological Procedures

In line with the main focus of this research, which aims to investigate the relationship between satisfaction and academic engagement, through statistical analysis of sociodemographic factors that can affect students' academic satisfaction, an electronic survey was used, sent via e-mail. e-mail and made available from March 23 to April 12 of 2020. It is noteworthy that the questionnaire applied was divided into two parts:

- a) The first part of the questionnaire comprised the sociodemographic profile of the respondents: 1 – gender; 2 – the age group; 3 – the type of course the respondent attends (Bachelor's Degree or Bachelor's Degree); 4 – if the conclusion of high school took place in a public or private school; 5 – if the respondent has a work activity; 6 – what is the time of attendance of the course (day or night); and 7 – if the respondent carries out research activity at his/her educational institution;
- b) The second part of the questionnaire presented six statements with the objective of ascertaining the academic satisfaction of the respondents, structurally constructed based on a five-point Likert scale (1 - strongly disagree and 5 - strongly agree). The statements describe a set of experiences considered essential for promoting student satisfaction, and are displayed in Table 01.

Frame 01. Statements about academic satisfaction

Nomenclatura	Descritivo
R1	Your Higher Education Institution (HEI) is stimulating
R2	Your experience in higher education has corresponded to your expectations
R3	The relationship with your teachers is good
R4	You feel respected by your classmates
R5	Your course adequately prepares you for the professional field
R6	The teaching performance of your teachers is good

Source: authors, 2020.

Validation of the Data Collection Instrument

For internal validation of the survey, was used the model defined by Cronbach (1951). The purpose of this model is to measure a coefficient called Cronbach's alpha, capable of measuring the correlation between responses in a questionnaire by analyzing the profile of the responses given by individuals. The result points to the internal consistency of the questionnaire ($\alpha=0.736$), which demonstrates that the instrument used in data collection is reliable.

Statistical Procedures for Data Analysis

In accordance with the proposed objectives, the data were submitted to three types of statistical analysis: descriptive statistics, through analysis of mean and standard deviation of constructs and variables, as well as frequency distribution; multivariate analysis of variance (MANOVA - Multivariate Analysis of Variance), with the objective of evaluating whether the sociodemographic variables (gender, age group, type of course, completion of high school, course shift, work activity and exercise of research) influence the variability of the scores of the variables that represent academic satisfaction; and analysis of variance (ANOVA), relating the sociodemographic variables with each of the academic satisfaction factors, with the objective of identifying and discriminating the effects of the variables that represent the sociodemographic characteristics of the respondents on each academic satisfaction construct.

Results

Sample Characterization

This part of the data collection identified the general characteristics of the respondents and consisted of closed questions, which dealt with the sociodemographic information of the students, as well as their academic career, as shown in Table 01.

Table 1. Sociodemographic characterization of respondents

Description	n	%
Gender		
Male	92	29%
Female	228	71%
Age group		
15 to 17 years old	5	2%
18 to 20 years old	68	21%
21 to 24 years old	112	35%
25 to 30 years old	56	18%
31 to 40 years old	58	18%
41 to 50 years old	14	4%
Over 51 years old	7	2%
Type of School That Completed High School		
Public School	209	65%
Private School	111	35%
Kind of Underdegree Course		
Licensure Degree for Education	178	56%
Bachelor Degree for Others Occupations	142	44%
Course Shift		
Diurnal	171	53%
Nocturnal	149	47%
Participation in Research Activity		
Yes	151	47%
No	169	53%
Performs work activity		
Yes	199	62%
No	121	38%
Total Respondents	320	100%

Source: by authors, 2020.

As can be seen, the survey obtained a total of 320 valid responses. As for the main characteristics of the respondents, we highlight that the sample consisted mostly of women (71%), the age group with the highest frequency was the one comprising people from 21 to 24 years old (35%), the majority of respondents attended public school during high school (65%) and, in the context of Higher Education, the respondents mostly attend some degree for licensure to education (56%), highlighting that the majority (53%) declared to attend diurnal school. As for participation in research activities, most individuals declared not to participate (53%) and as for work activity, most declared to exercise it (62%).

Descriptive statistics

The analysis of the results of descriptive statistics regarding the perspectives of Higher Education students on academic satisfaction arising from their experiences, indicates, according to Table 03, that all variables obtained an average above three, which indicates that, in general, individuals feel academically satisfied, especially when analyzing the overall mean score of the responses (EMG - 3.85).

The analysis of the perception of respondents shows that they feel stimulated by their Higher Education Institution (R1 - 3.77), while their expectations are corresponded (R2 - 3.76). As for the perception of the teachers, the respondents showed that in addition to having a good relationship with their teachers (R3 - 4.01), they also have a good didactic performance in the students opinion (R6 - 3.77).

In addition to these perceptions, the students stated that the degree courses prepares them adequately for the professional field (R5 - 3.69) and they were very emphatic in stating that they feel respected by their classmates (R4 - 4.11).

Table 2. Descriptive statistics of sample

Statistics	R1*	R2*	R3*	R4*	R5*	R6*	EMG*
Average	3.77	3.76	4.01	4.11	3.69	3.78	3.85
Standard deviation	0.91	0.94	0.83	0.96	1.00	0.93	0.65
N	320	320	320	320	320	320	320
Minimum	1	1	1	1	1	1	1
Maximum	5	5	5	5	5	5	5

Notes*: R1 - Your Higher Education Institution (HEI) is stimulating; R2 - Your experience in higher education has met your expectations; R3 - The relationship with your teachers is good; R4 - you feel respected by your classmates; R5 - Your course adequately prepares you for the professional field; R6 - The didactic performance of your teachers is good; EMG – Overall Average Score of responses.

Source: by authors, 2020

Multivariate Analysis of Variance (MANOVA - Multivariate Analysis of Variance)

After the descriptive analysis of the data, we proceeded to the next step, which consists of understanding the statistical significance of the differences between the sociodemographic variables that represent the profile characteristics of the respondents, and the academic satisfaction scores, using, for that, the multivariate analysis of variance (MANOVA).

It is noteworthy that, before using MANOVA, tests were carried out for the validity of the assumptions underlying the use of this statistical technique. First, the Doornik-Hansen test was performed to analyze the multivariate normal distribution of the dependent variables, which indicated that the results did not reject the null hypothesis of normal distribution (f: 2.3669 and P-value = 0.124). As a complement, the Shapiro-Francia normality test was used, as shown in Table 03.

Table 3. Saphiro-Francia test for normality

Statistics	R1	R2	R3	R4	R5	R6	EMG
Estimators	0.9987	0.9903	0.9990	0.9919	0.9954	0.9972	0.9859
P-value	0.993	0.034**	0.999	0.004***	0.396	0.780	0.073*
n	320	320	320	320	320	320	320

Note: R1 - Your Higher Education Institution (HEI) is stimulating; R2 - Your experience in higher education has met your expectations; R3 - The relationship with your teachers is good; R4 - you feel respected by your classmates; R5 - Your course adequately prepares you for the professional field; R6 - The didactic performance of your teachers is good; EMG – Overall average score of responses. * Significant to 10%; ** Significant to 5%; *** Significant to 1%.

Source: by outhors, 2020.

In general, considering a significance level of 0.05, the Shapiro-Francia test converges to the Doornik-Hansen test, with the exception of variables R2 (Has your experience in higher education met your expectations) and R4 (you feels respected by his classmates). Continuing, tests were carried out to assess the equality of the variance-covariance and homogeneity matrix in each dependent variable.

Table 4. Equality test of the variance-covariance matrix (Box's M)

Variables	P-valor
Gender	0.0209**
Type of School That Completed High School	0.3896
Type of Higher Education Degree	0.0371**
Degree Schedule	0.1134
Work activity	0.5991
Participation in Research Activity	0.5382
Age group	0.0847*

Note: **significant to 5%; * significant to 10%.

Source: by outhors, 2020.

Table 5. Test to verify the homogeneity of variance of the dependent variables (Levene)

Variables	R1	R2	R3	R4	R5	R6	EMG
Gender	0.564	0.439	0.677	0.991	0.123	0.073*	0.205
Type of School That Completed High School	0.810	0.362	0.637	0.357	0.270	0.271	0.939
Type of Higher Education Degree	0.306	0.515	0.885	0.172	0.616	0.232	0.777
Degree Schedule	0.574	0.027	0.967	0.238	0.967	0.285	0.331
Work activity	0.718	0.718	0.789	0.893	0.292	0.683	0.447
Participation in Research Activity	0.061*	0.522	0.636	0.486	0.939	0.905	0.376
Age group	0.442	0.043	0.983	0.467	0.179	0.018**	0.342

Notes R1 - Your Higher Education Institution (HEI) is stimulating; R2 - Your experience in higher education has met your expectations; R3 - The relationship with your teachers is good; R4 - you feel respected by your classmates; R5 - Your course adequately prepares you for the professional field; R6 - The didactic performance of your teachers is good; EMG – Overall average score of responses.

* Significant to 10%; ** significant to 5%; *** significant to 1%.

Source: by outhors, 2020.

The results of the Box's M test suggest the non-rejection of the null hypothesis of equality of the covariance matrices for the sociodemographic variables type of high school,

course schedule, work and research activities. Levene's test indicates that, considering the significance level of 0.05, only the dependent variable R6 (The teaching performance of their teachers is good) in relation to the age group, did not meet the assumption of data homogeneity, as evidenced in Table 05.

After analyzing the assumptions, the statistical analysis stage was carried out regarding the academic satisfaction scores and the sociodemographic characteristics of the responding students, as shown in Table 06.

Table 6. MANOVA for analysis of the influence of sociodemographic characteristics and academic satisfaction

Independent Variables	Categorias	MANOVA		
		Λ	F	P-valor
Gender	Masculino/Feminino	0.9855	0.65	0.7183
Type of School That Completed High School	Pública/Privada	0.935	3.06	0.004***
Type of Higher Education Degree	Bacharelado/Licenciatura	0.9664	1.53	0.15558
Degree Schedule	Diurno/Noturno	0.9888	0.50	0.8356
Work activity	Sim/Não	0.9466	2.48	0.0171**
Participation in Research Activity	Sim/Não	0.9365	2.99	0.0048***
Age group	Variável contínua	0.8359	1.32	0.0831*

Notes: Λ – Wilks' Lambda; * Significant to 10%; ** significant to 5%; *** significant to 1%.

The analysis of Table 06, which deals with the results of the multivariate analysis (MANOVA), shows that the variables: type of high school, work, research and age group are statistically significant when analyzing the total scores of academic satisfaction, which implies that these variables can explain the variability of these scores. Thus, having found that some sociodemographic variables contribute to the variation of academic satisfaction, a new stage of statistical tests was carried out with the objective of discriminating the effects of each of the variables referring to academic satisfaction, through the use of an analysis of variance (ANOVA).

Table 7. Differences in students academic satisfaction, considering sociodemographic variables (ANOVA)

Sociodemographic variables	Academic Satisfatcion		
	Average	F	P-value
Male	3.832	0.120	0.733
Female	3.860		
High School in Public Institucion	4.163	12.140	0.001***
High School in Private Institution	3.803		
Licensure Degree for Education	3.813	0.910	0.341
Bachelor Degree for Others Occupations	3.883		
Diurnal	3.868	0.170	0.684
Nocturnal	3.838		
Perform paid activity	3.835	5.990	0.015**
Does not perform paid activity	3.868		
Perform research activity	3.809	3.543	0.061*
Does not perform research activity	3.887		

15 to 17 years old	4.002		
18 to 20 years old	3.998		
21 to 24 years old	3.795	1.260	0.273
25 to 30 years old	3.781		
31 to 40 years old	3.811		
41 to 50 years old	4.068		

Note: * Significant to 10%; ** significant to 5%; *** significant to 1%.

Source: by authors, 2020.

The results show that most students showed satisfaction and these data are in line with other similar works, such as Ramos et al. (2015) and Silva et al. (2018). These results indicate that the experiences perceived by the respondents regarding their higher education institution (HEI), the didactic quality of the teachers' actions, relationships with their peers and preparation for the job market, are striking and positive aspects in their academic satisfaction.

In general, Table 07 shows that the sociodemographic variables high school completion, work activity and research activity in the Educational Institution affect the academic satisfaction of students.

As for the exercise of work activities, it is noteworthy that students who do not perform work activities were more academically satisfied than the others. These findings converge to those found by Fontana and Brigo (2012), Silva et al. (2011) and Ramos et al. (2015) who noticed that the exercise of work activities simultaneously with the performance of academic activities can cause physical and emotional wear on the student, can influence the involvement and satisfaction of this student with the academic environment. Thus, students who do not work tend to be more academically satisfied.

Regarding the variable related to the exercise of research activities at the HEI, we highlighted that students who do not carry out this type of activity were more academically satisfied. In a way, these results are in line with those found by Ramos et al. (2015) which showed that students who performed extracurricular activities were less satisfied in relation to those who did not perform such activities, given that these extracurricular activities can overload the academic routine.

As for the variable about the student having attended high school in public or private schools, it is noteworthy that the results showed that those who studied in public schools were more academically satisfied than those who studied in private schools. On the subject, it can be highlighted the fact that students graduating from high school in public schools have a lower expectation in relation to higher education institutions, compared to those who completed high school in private institutions.

The other variables referring to gender, age group, type of course and course time (day or night) did not present a statistically significant relationship with academic satisfaction.

Aiming at a more in-depth examination, an analysis was carried out of the impact of each sociodemographic variable on each of the statements about academic satisfaction, shown in Table 08.

Table 8. Differences in students academic satisfaction, considering sociodemographic variables and each of the academic satisfaction variables (ANOVA)

Sociodemographic variables	R1			R2			R3		
	Average	F	P-value	Average	F	P-value	Average	F	P-value
Male	3.784	0.020	0.899	3.807	0.360	0.549	3.966	0.290	0.594
Female	3.770			3.736			4.022		
High School in Public Institution	3.932	1.550	0.214	3.977	2.840	0.093*	4.273	5.310	0.022**
High School in Private Institution	3.748			3.720			3.964		
Licensure Degree for Education	3.704	1.500	0.222	3.785	0.400	0.529	1.435	2.070	0.151
Bachelor Degree for Others Occupations	3.830			3.718			1.592		
Diurnal	3.839	1.450	0.229	3.819	1.260	0.262	4.013	0.020	0.884
Nocturnal	3.716			3.700			4.013		
Perform paid activity	3.556	5.200	0.023**	3.662	4.470	0.035**	4.303	5.150	0.024**
Does not perform paid activity	3.810			3.882			4.035		
Perform research activity	3.506	4.250	0.040**	3.759	-	0.955	3.972	0.440	0.509
Does not perform research activity	3.761			3.753			4.034		
15 to 17 years old	3.800	0.470	0.831	3.600	0.700	0.647	3.600	1.180	0.317
18 to 20 years old	3.824			3.926			4.074		
21 to 24 years old	3.712			3.679			3.938		
25 to 30 years old	3.673			3.704			4.000		
31 to 40 years old	3.914			3.793			3.983		
41 to 50 years old	3.786			3.800			4.467		
Sociodemographic variables	R4			R5			R6		
	Average	F	P-value	Average	F	P-value	Average	F	P-value
Male	4.030	0.440	0.510	3.853	2.200	0.139	4.126	0.150	0.697
Female	3.967			3.702			4.083		
High School in Public Institution	3.648	0.910	0.340	4.227	15.510	0.000***	4.227	12.260	0.001***
High School in Private Institution	3.758			3.604			3.707		
Licensure Degree for Education	4.040	0.640	0.426	4.067	0.770	0.380	3.854	2.670	0.104
Bachelor Degree for Others Occupations	3.965			4.162			3.683		
Diurnal	4.087	0.150	0.700	3.671	0.100	0.757	3.779	0.100	0.757
Nocturnal	4.129			3.706			3.778		
Perform paid activity	3.607	4.210	0.041**	4.341	3.020	0.084*	3.809	0.580	0.448
Does not perform paid activity	3.844			4.072			3.727		
Perform research activity	4.042	1.260	0.262	3.521	7.460	0.007***	3.732	0.610	0.434
Does not perform	4.163			3.825			3.815		

research activity									
15 to 17 years old	4.200			4.400			4.400		
18 to 20 years old	4.191			3.971			4.000		
21 to 24 years old	4.152	0.710	0.642	3.640	0.410	0.870	3.670	1.570	0.156
25 to 30 years old	3.964			3.600			3.709		
31 to 40 years old	4.000			3.483			3.690		
41 to 50 years old	4.400			3.933			4.000		

Note: R1 - Your Higher Education Institution (HEI) is stimulating; R2 - Your experience in higher education has met your expectations; R3 - The relationship with your teachers is good; R4 - you feel respected by your classmates; R5 - Your course adequately prepares you for the professional field; R6 - The didactic performance of your teachers is good; R7 – Overall average score of responses.

* Significant to 10%; ** significant to 5%; *** significant to 1%.

Source: by outhors, 2020.

When analyzing the results regarding the aspects related to academic satisfaction in an isolated way, it is evident that the sociodemographic variables completion of high school, exercise of work activity and exercise of research activity in the Educational Institution, are statistically significantly associated with some aspects of academic satisfaction, and present specificity, with different characteristics of association when considering the nature of each aspect of the statements, as shown in Table 08.

When analyzing the statement R1 (your HEI is stimulating), it appears that only the sociodemographic variables exercise of work activity and exercise of research activity at the HEI showed statistical significance. Regarding these sociodemographic variables, it is noteworthy that students who do not work and do not carry out research activities at the HEI, demonstrated greater academic satisfaction when asked about their HEI being stimulating.

In the statement R2 (your experience in higher education has corresponded to your expectations), only the sociodemographic variables high school completion and work activity showed statistical significance. The data reveal that students who graduated from high school in public schools and those who do not perform work activities were the ones who showed greater academic satisfaction regarding the correspondence of their expectations in higher education.

For the statement R3 (the relationship with your teachers is good), only the sociodemographic variables high school completion and work activity showed statistical significance. In this way, students coming from high school in public schools and those who carry out work activities showed greater academic satisfaction with regard to the relationship with their teachers.

Regarding the statement R4 (you feel respected by your classmates), it is noted that the only variable that showed statistical significance was the exercise of work activity and the students who declared not to exercise this type of activity were the most academically satisfied in this area.

The statement R5 (your course adequately prepares you for the professional field) presented a statistical and significant result with the sociodemographic variables completion

of high school, exercise of work activity and exercise of research activity in the Teaching Institution. High school graduates from public schools, who carry out work activities and who do not carry out extracurricular activities were academically satisfied, regarding the perception of the preparation that their course offers them for the professional field.

Finally, the variable R6 (the didactic performance of their teachers is good) showed that only the sociodemographic variable high school completion affected it significantly, noting that students who came from high school in public institution were more satisfied academically regarding the perception regarding the good didactic performance of the professors.

Final considerations

Under their social objective, which focuses on the formation of critical and socially engaged citizens, HEIs must promote conditions and experiences that enable students' academic engagement. Therefore, it is necessary to better understand which factors contribute to academic engagement, considering that, with this understanding, HEIs can promote more efficient actions in academic success beyond mere quantitative performance in disciplinary tests.

We highlight that, among the variables that impact academic engagement, is academic satisfaction. In this direction, some researchers emphasize that the understanding of the student's academic satisfaction in relation to their HEI interferes, both in their level of engagement, and in the decision to stay in them (RODRIGUES; LIBERATO, 2016; MACHADO ET AL., 2014). Thus, knowledge of students' academic satisfaction is a differential in the process of promoting engagement.

It is noteworthy that the analysis of the results achieved has limitations inherent to the use of empirical tests and methodological approach that must be considered when reading this study.

References

AKPAN, Imaobong D.; UMOBONG, Mfonobong E. Analysis of achievement motivation and academic engagement of students' in the Nigerian classroom. **Academic Journal of Interdisciplinary Studies**, v. 2, n. 3, p. 385-390, 2013. Available on: <https://pdfs.semanticscholar.org/f9ec/ed2de38db40a144b5828ce5d997c1b2af1cd.pdf>. Access on: 26 nov. 2020.

ASTIN, Alexander W. **What matters in college? Four critical years revisited**. San Francisco: Jossey-Bass Publishers, 1993.

ASTIN, Alexander W. Student involvement: a developmental theory for higher education. **Journal of College Student Development**, v. 40, n. 5, p. 518-528, 1999.

AUGÉ, Marc. **Não-lugares**. Introdução a uma antropologia da supermodernidade. Campinas, São Paulo: Papirus, 2012.

AUGÉ, Marc. **Por uma antropologia da mobilidade**. Maceió: Editora Unesp/UFAL, 2010.

BAITELLO, Norval. **A era da iconofagia: ensaios de comunicação e cultura**. São Paulo: Hacker Editores. 2008.

BAKER, Jean. A.; MAUPIN, Angela. N. School satisfaction and children's positive school adjustment. In R. Gilman, E. S. Huebner, & M. J. Furlong (Eds.), **Handbook of positive psychology in schools**(pp. 189–196). New York: Routledge, 2009. Available in: https://images-insite.sgp1.digitaloceanspaces.com/dunia_buku/koleksi-buku-neuro-science/handbook-of-positive-psychology-in-schools-pdfdrivecom-17401577180294.pdf#page=208. Access on: 22 nov. 2020.

BARKLEY, Elizabeth F. **Student Engagement Techniques: A Handbook for College Faculty**. Jossey-Bass. 2010.

BEZUIDENHOUT, Gerhard; DE JAGER, Johan. Clients' service perceptions of private higher education institutions in South Africa: An importance-performance analysis for strategic managers. **African Journal of Business Management**, v. 8, n. 2, p. 55-67, 2014.

CASTROGIOVANNI, Antonio. Lugar, no-lugar y entre-lugares. Los ángulos del espacio turístico. **Estudios y Perspectivas en Turismo**, v. 16, p. 05-25, 2007.

CHARLOT, Bernand. A escola e o trabalho dos alunos. **Anais do XVII Colóquio da Association Francophone Internationale de Recherche Scientifique em Education (AFIRSE)**, secção portuguesa, 2015. Available in: <http://www.afirse.com/archives/cd2/confer%C3%A0ncias/Bernard%20Charlot.pdf>. Access on: 16 out. 2020.

CHEN, Hsiu-Chin; LO, Huan-Sheng. Development and psychometric testing of the nursing student satisfaction scale for the associate nursing programs. **J. NursEducPract**, v. 2, n. 3, p. 25-37, 2012. Available on : <http://www.sciedu.ca/journal/index.php/jnep/article/view/656/0>. Access on : 16 nov. 2020.

COATES, Hamish. A model of online and general campus-based student engagement. **Assessment & Evaluation in Higher Education**, v. 32, n. 2, p. 121-141, 2007.

COLE, Michele; SHELLEY, Daniel; SWARTZ, Louis. Online instruction, e-learning, and student satisfaction: A three year study. **International Review of Research in Open and Distance Learning**, v. 15, n. 6, p. 111–131, 2014.

COSTA; Vitória. Engajamento acadêmico: aportes para os processos de avaliação da educação. superior XII Congresso Nacional de Educação. PUCPR, 2017. Available on : http://educere.bruc.com.br/arquivo/pdf2017/26956_13785.pdf. Access on : 10 out. 2020.

DIAS SOBRINHO, José. Universidade fraturada: reflexões sobre conhecimento e responsabilidade social, **Avaliação**, v. 20, n. 3, p. 581-601, 2015.

ELLIOTT, Kevin M.; SHIN, Dooyoung. Student satisfaction: An alternative approach to assessing this important concept. **Journal of Higher Education**, v. 24, n. 2, p. 197- 209, 2002. Disponível em: <https://www.tandfonline.com/doi/abs/10.1080/1360080022000013518>. Access on: 15 out. 2020.

FADEL, Cristina Berger; SOUZA, Juliana Aparecida; BORDIN, Danielle; GARBIN, Cléa Adas Saliba; GARBIN, Artênio José Ísper; SALIBA, Nemre Adas. Satisfaction with the academic experience among graduate students of a brazilian public university. **RGO, RevGaúchOdontol**, v. 66, n. 1, p. 50-59, 2018. Available on : <https://www.scielo.br/j/rgo/a/KXSZKXJVWv4dJjdMbCFRg7Q/?lang=en>. Access on: 2 ou. 2020.

FINELLI, Leonardo Augusto Couto; ALKMIM, Luciana Conceição Rodrigues; SENA, Ludmila de Jesus. Satisfação com a experiência acadêmica de estudantes do curso de farmácia, **Humanidades**, v. 6, n. 2, p. 85-98, 2017.

FONTANA, Rosane Teresinha; BRIGO, Lariane. Estudar e trabalhar: percepções de técnicos de enfermagem sobre esta escolha. **Esc Anna Nery**, v.16, n. 1, p. 128-33, 2012. Available on : <https://www.scielo.br/j/ean/a/g6cVQ9Rrv5YVNMT8g7CDxVD/abstract/?lang=pt>. Access on: 18 nov. 2020.

GIBSON, Allen. Measuring business student satisfaction: A review and summary of the major predictors. **Journal of Higher Education Policy and Management**, v. 32, n. 3, p. 251-259, 2010. Available on : <https://www.tandfonline.com/doi/abs/10.1080/13600801003743349>. Access on: 22 nov. 2020.

GUERREIRO-CASANOVA, Daniela Couto; POLYDORO, Soely Aparecida Jorge. Autoeficácia na formação superior: percepções durante o primeiro ano de graduação. **Psicologia: Ciência e Profissão**, v. 31, n. 1, p. 50-65, 2011. Available on: <https://www.scielo.br/j/pcp/a/XwGpDggzjDVgd5tVyqy3zGP/abstract/?lang=pt>. Access on : 12 dec. 2020.

JARADEEN, Najah; JARADAT, Raed; SAFI, * Ahamad Abo.; TARAWNEH, Falah Al. Students satisfaction with nursing program. **Bahrain Med Bull**, v. 34, n. 1, p. 1-6, 2012. Available on : https://www.bahrainmedicalbulletin.com/march_2012/Students_Satisfaction.pdf. Access on: 22 oct. 2020.

KAMPPF, Adriana Justin Cerveira; RAMIREZ, Rosa Eulógia; AMORIM, Lidiane Ramirez. A universidade enquanto (não)lugar: reflexões sobre fatores de engajamento e lugarização de estudantes. **Educação Por Escrito**, v. 9, n. 2, p. 347-360, 2018.

KANTEK, Filiz.; KAZANCI, Gonca. An analysis of the satisfaction levels of nursing and midwifery students in a health college in Turkey. **Contemp Nurse**. V. 42, n. 1, p. 36-44, 2012. Available on : <https://www.tandfonline.com/doi/abs/10.5172/conu.2012.42.1.36>. Access on: 22 dec. 2020.

KUH, George. Student engagement in the first year of college. **Challenging and supporting the first-year student: a handbook for improving the first year of college**, New Jersey, USA, p. 86-107, 2005.

KUH, George. **Participación de los estudiantes en el primer año de la universidad**. Desafiando y apoyando al estudiante de primer año: un manual para mejorar el primer año de la universidad, Nueva Jersey, EE. UU. 2009.

LIN, Shuqiong; SALAZAR, Timothy R.; WU, Shuang. Impact of academic experience and school climate of diversity on student satisfaction. **Learning Environ Res**, v. 22, p. 25–41, 2019. Available on : <https://link.springer.com/article/10.1007%2Fs10984-018-9265-1>. Access on : 10 nov. 2020.

MACHADO, Sérgio Henrique de Mattos; LADEIRA, Rondinelli De Carvalho; OLIVEIRA, Cristiano Guilherme Alves; POMPILO, Wendel Mattos; SHIMODA, Eduardo. Percepções de Discentes quanto à importância e satisfação de itens relacionados a um Curso Superior de Farmácia. **Revista Práxis**, v. 11, p. 125-138, 2014. Available on : <http://revistas.unifoa.edu.br/index.php/praxis/article/view/622>. Access on : 18 sep. 2020.

MCCLENNEY, Kay; MARTI, Nathan; ADKINS, Courtney. Student engagement and student outcomes: key findings from” CCSSE” validation research. **Community College Survey of Student Engagement**, USA, 2012. Available on : <https://eric.ed.gov/?id=ED529076>. Access on: 26 jun. 2020.

MEYER, Debra K.; TURNER, Julianne C. Re-conceptualizing Emotion and Motivation to Learn in Classroom Contexts. **Educational Psychology Review** v. 18, n. 4, p. 377–390, 2006. Available on : <https://link.springer.com/article/10.1007%2Fs10648-006-9032-1>. Access on: 22 oct. 2020.

MUTISYA, Elizabeth Nduku; DINGA, Jotham N.; KINAI, Theresia K. Students' Perceptions of Teacher Support and Academic Motivation as Predictors of Academic Engagement. **International Journal of Applied Psychology**, v. 9, n. 5, p. 128-134, 2019.

OBLINGER, Diana G.; OBLINGER, James L. Is it age or IT: first steps towards understanding the netgeneration. **Educating the Net Generation**. p.2.1–2. 2005. U.S.: Educause. Available on : <http://www.educause.edu/ir/library/pdf/pub7101.pdf>. Access on : 18 sep. 2020.

PENNINGTON, Darren C.; ZVONKOVIC, Aniza M.; WILSON, Sandra L. Changes in College Satisfaction Across an Academic Term. **Journal of College Student Development**, 30, 528-535, 1989.

RAMOS, Aline Marcelino; BARLEM, Jamila Geri Tomaschewski; LUNARDI, Valéria Lerch; BARLEM, Edison Luiz Devos; SILVEIRA, Rosemary Silva; BORDIGNON, Simoní Saraiva. Satisfação com a experiência acadêmica entre estudantes de graduação em Enfermagem. **Texto Contexto Enferm.**, v. 24, n. 1, p. 187-195, 2015. Available on : <https://www.scielo.br/j/tce/a/QQzjpsmnpZ88XrRXqfYSRLD/?format=pdf&lang=pt>. Access on: 26 jul. 2020.

RODRIGUES, Adriana Silva Souza; LIBERATO, Giuliana Bronzoni. Fatores determinantes da satisfação com a experiência acadêmica. **Revista Pensamento Contemporâneo em Administração RPCA**, v. 10, n. 2, p. 18-33, 2016. Available on : <http://www.spell.org.br/documentos/ver/43077/fatores-determinantes-da-satisfacao-com-a-experiencia-academica->. Access on: 20 nov. 2020.

RUDDUCK, Jean. Student Voice, Student Engagement, And School Reform. In: THIESSSEN, D.; COOK-SATHER, A. (Eds.); **International Handbook of Student Experience in Elementary and Secondary School**, p.587-610, 2007. Springer Netherlands.

SCHLEICH, Ana Lúcia Righi. Escala de satisfação com a experiência acadêmica de estudantes do ensino superior. **Avaliação Psicológica**, v. 5, n. 1, pp. 11-20, 2006.

SILVA, Vânea Lucia dos Santos; CHIQUITO, Natália do Carmo; ANDRADE, Rosemeire Antonia Paim de Oliveira; BRITO, Maria de Fátima Paiva; CAMELO, Silvia Helena Henriques. Fatores de estresse no último ano do curso de graduação em enfermagem: percepção dos estudantes. **Revenferm UERJ**, v. 19, n. 1, 2011. Available on : <https://pesquisa.bvsalud.org/portal/resource/pt/lil-591026>. Access on: 18 nov. 2020.

SILVA, Edileusa Araújo; ROCHA, Solange Ferreira; FINELLI, Leonardo Augusto Couto. **Satisfação com a experiência acadêmica de estudantes do curso de Psicologia**. Trabalho de Conclusão de Curso (Graduação em Psicologia) – Faculdade de Saúde Ibituruna – FASI. Montes Claros, 2015.

SILVA, Juliana Ollé Mendes; PEREIRA JUNIOR, Gerson Alves; COELHO, Izabel Cristina Meister Martins; PICHARSKI, Gledson Luiz; ZAGONEL, Ivete Palmira Sanson.

Engajamento entre Estudantes do Ensino Superior nas Ciências da Saúde (Validação do Questionário Utrecht Work Engagement Scale (UWES-S) com Estudantes do Ensino Superior nas Ciências da Saúde). **Revista Brasileira de Educação Médica**, n. 42, v. 2, p. 15-25, 2018.

Available on:

<https://www.scielo.br/j/rbem/a/rsdJqLNvxGprBvs87JbYX7P/abstract/?lang=pt>. Access on : 15 out. 2020.

SINGH, Shashi; SINGH, Ajay; SINGH, Kiran. Education systems and academic satisfaction: a study on rural and urban students of traditional vs open education system in India. **Turk Online J Dist Educ.**, v. 13, n. 3 p. 390-406, 2012. Available on: <https://eric.ed.gov/?id=EJ997829>. Access on: 20 sep. 2020.

SKINNER, Ellen A.; KINDERMANN Thomas A.; FURRER, Carrie J. A Motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. **Educational and Psychological Measurement**, 69 (3), 493-525, 2009.

TROWLER, Vicki. Student engagement literature review. **The higher education academy**, USA, v. 11, p. 1-15, 2010.

VAN DEUREN, Rita; LHADEN, Karma. Student Satisfaction in Higher Education: A Comparative Study of a Private and a Public College, **Bhutan Journal of Research & Development**, p 40-52, 2017.

VITÓRIA, Maria Inês Côrte Et Al. Engajamento acadêmico: desafios para a permanência do estudante na Educação Superior. **Educação** (Porto Alegre), v. 41, n. 2, p. 262-269, 2018. Available on : <http://revistaseletronicas.pucrs.br/ojs/index.php/faced/article/view/27960>. Access on: 29 oct. 2020.

WANG, Ming-Te; FREDRICKS, Jennifer. The reciprocal links between school engagement, youth problem behaviors, and school dropout during adolescence. **Child Development**, v. 85, n. 2, p. 722-37, 2014.

WANG, Ming-Te; ECCLES, Jacquelynne S. School context, achievement motivation, and academic engagement: A longitudinal study of school engagement using a multi-dimensional perspective. **Journal of Learning and Instruction**, v. 28, p. 12-23, 2013.