

Satisfaction with Distance Learning: an Analysis through Graduates at UFSM

Satisfação com o Curso EAD: uma Análise a partir dos Egressos da UFSM

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Abstract

Vanessa da Silva PONTES*
Kelmara Mendes VIEIRA
Taiane Keila MATHEIS
Reisoli BENDER FILHO
Victor Matheus Portela RIBEIRO

Federal University of Santa Maria,
Avenida Roraima, 1000, Santa Maria,
RS, Brasil

*vanessa-spontes@hotmail.com

This study analyzed how pleased graduate students are in courses offered by Open University of Brazil, Santa Maria University (UFSM). Methodologically, we applied descriptive statistics, factor analysis and regression in a sample of 712 graduates. Results showed that graduates are satisfied with the chosen course and indicated that the main determinant is related to the quality of teaching. Conversely, satisfaction was lower for non-white graduates, which included cultural and social issues related to black ethnicity, and for those who, at some point during the course, thought about dropping out. It is expected that the knowledge of the determinants of graduates' (dis)satisfaction may contribute to the settlement of strategies that aim to increase students' satisfaction and the retention levels.

Keywords: Distance learning. Degree of student satisfaction. Graduates. Higher education.



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Resumo

O objetivo deste estudo foi analisar a satisfação dos egressos da Universidade Aberta do Brasil na Universidade de Santa Maria (UFSM). Metodologicamente, foram aplicadas estatísticas descritivas, análise fatorial e regressão em uma amostra de 712 egressos. Os resultados demonstraram que os egressos estão satisfeitos com o curso escolhido e indicaram que o principal determinante está relacionado com a qualidade da didática. De outro lado, a satisfação foi menor para egressos não brancos, que compreende questões culturais e sociais relacionadas à etnia negra, e, para aqueles que, em algum momento durante a realização do curso, pensaram em evadir. Espera-se que o conhecimento dos determinantes da (in)satisfação dos egressos possa contribuir para o estabelecimento de estratégias que busquem ampliar a satisfação e a retenção dos alunos.

Palavras-chave: Educação a distância. Grau de satisfação do aluno. Egressos. Ensino superior.

1. Introduction

Educational qualification has been even more demanded by the labor market (VIEIRA et al., 2022). Therefore, the offer for higher education courses in the mode of Distance Learning (EAD) have shown to be a feasible alternative for qualification and continuing education faced with the new demands in the business world (MAURO et al., 2017).

In Brazil, Distance Learning had a legal start with the edition of the Law N. 9.394, in 1996, the Law of Directives and Bases of National Education (LDB), when it was recognized and authorized. Later, distance learning was regulated by means of Decree N. 5.622, 2005, of the Presidency of the Republic, in which it was established as an educational modality as a process of teaching and learning, using information and communication technologies.

With the process of expansion of higher education in the country, it was created, through the Decree N. 5.800, on June 08, 2006, the System Open University in Brazil (UAB), which aims to make possible the access to courses and programs of higher education, in distance learning, to the public that is far from urban centers, with the priority of offering graduation courses and initial and continuing training for basic education teachers (FERREIRA; CARNEIRO, 2015; MENDONÇA et al., 2019). Torres et al. (2019) highlighted the ability of this courses in attending the population that is geographically dispersed and without access to teaching spaces, making possible, that the student has access to higher education, without changing his/her social context. Also, this modality contributes to the democratization of teaching in the country because, as it is more convenient to the student, it ends up having greater reach and inclusion (DOS SANTOS; LIMA; SARAIVA, 2020).

Currently, Distance Learning has become more relevant in the educational scenario, with the increase of this course offering, and the significant number of new undergraduate students. In this context, Oliveira and Santos (2019) clarify how important it is to search for the reduction of inequality of the access to higher education. In this regard, the Open University favors the broadening and internalization of courses offering (HAYASHI; DOS SANTOS SOEIRA; CUSTÓDIO, 2020), making necessary the discussion on the program result, being the satisfaction assessment, an important tool.

According to Costa e Castanhar (2003), establishing indicators that make it possible to assess the courses, positively collaborates in the process of improvement, following up, and also in decision-making of the institutions. For Bender Filho and Saldanha (2020), the assessment allows that the institution may effectively know its courses situation, through information that had been collected and accurately, applied, making it possible a better execution of the education public policy, contributing with the alignment of the strategies and enhancing the program.

This assessment can be influenced by many factors, being for Appleton-Knapp and Krentler (2006), the two main ones, the personal determinants, related to the student himself, and the institutional determinants, related to the educational experience. Satisfaction has a relevant role because it results from the judgment through the reality that had been perceived by the student (SOUZA; REINERT, 2010).

The graduate's satisfaction can be defined as the perception related to the learning experiences while a student and the value attributed to the distance learning course, being an important indicator of a course's efficacy (KUO et al., 2014). This information can help in the decision making for continued improvement (SOUZA et al., 2015).

Ramos et al. (2015) concluded that academic satisfaction is a subjective assessment which refers to all student's experience, defining it as a psychological condition which results from the confirmation, or not, of all students' expectations with the lived reality. In addition, measuring satisfaction is a very complex task, because it depends, beyond institutional factors, on the individual's personal factors, information that is considered by the institutions as a key factor for the evaluation of services provided.

That way, this study aimed to answer the following issue: how satisfied are the graduates in Distance Learning, at the Federal University of Santa Maria, with their courses? In face of this issue, this study assessed graduate students' satisfaction with Distance Learning Courses at UFSM. It also evaluated the way the determinants of the decision of attending the course, and the offered conditions contributed for the satisfaction.

This research innovated when evaluating satisfaction with Distance Learning courses at UFSM, through the graduates' opinion, and there were reported only studies with the graduates perceptions in the in-person modality. Investigating this subject becomes important in a scenario of increasing demand for Distance Learning courses, because it will be possible to provide elements so that the institutions, professors and managers enhance the Distance Learning courses, aiming to maintain or increase students' retention, and to reduce evasion (REINHART; SCHNEIDER, 2001).

2. Satisfaction Determinants in Distance Learning in Distance Learning Courses

Many studies have analyzed students' satisfaction in distance learning courses, using different approaches. Souza and Reinert (2010) showed there are differences in the determinants to (dis) satisfaction with the course, when in-person and distance learning courses are compared. In in-person courses, the factors are the curricular framework and the teaching staff, while in the distance learning modality, beyond the curricular framework, there were highlighted the professors' teaching and the characteristics of the courses (WOJAHN; RAMOS; CARVALHO, 2018).

Kuo et al. (2014) rank as main determinants for the satisfaction with distance learning courses, the interaction among students and among students and professors, the ability with the use of internet and technological tools, and the self-regulated learning. These factors generate satisfaction because, with them, students are able to plan, monitor and regulate their learning.

Andoh, Alppiah and Agyer (2020) highlighted that the university's physical installations, the relationship between students and staff, and professors' quality of teaching were determinant for the satisfaction of distance learning postgraduate students. They also highlighted that the age, sex and the study program were not determinant for satisfaction, but it is related to the localization of the center of studies. In this same sense, Muzammil, Sutawijaya and Harsasi (2020), assured that the interaction between students and professor have a positive effect in the satisfaction with the course. They also add, as a determinant factor, the students' interaction with the contents, and they observe that the satisfaction with the course is what makes students finish their courses.

In the studies by Schiestl, Anselmo and de Liz (2021), the main reason for choosing Distance Learning course is the cost-benefit, followed by the possibility of pay raise. Cost-benefit is an important element, because in-person courses usually demand higher expenditure of resources by the students in relation to distance learning. As advantages of the course in this modality, there were reported time, followed by cost, time flexibility and localization.

This evidence is in line with the discussion developed by Castells (2002), when he emphasized that access to the internet and information technology are fundamental instruments for reducing the gap of digital exclusion that separates the social classes that remained on the margins of the so-called society of information and the growth of digital networks. Furthermore, he pointed out that access to technology is a necessary but not sufficient condition for reducing this gap. To achieve this, it is essential to provide education on the use and appropriation of these tools. A situation that amplifies the relevance of distance education in this process of social and economic transformation.

As Distance Learning courses are promoted through the use of technologies, previous abilities and experience with technology, are factors that influence students' performance. Corroborating with this statement, Souza et al. (2015) observed that the higher the student's ability with computers, the better the learning process and the higher is the satisfaction with the course. They also noticed that the higher the satisfaction with the professor's performance and his/her positive attitude, the better the student's assessment regarding his/her own performance. Also, the pleasant interface and the easy and simplified manipulation of available technological tools, interfere in the students' level of satisfaction with the course.

Also, it is important to highlight that there is evidence that the more institutionally and organizationally organized the distance learning course is, more facilities are reached by students and; consequently, more satisfied they will be (ABBAD; CORRÊA; MENESES, 2010). Finally, it is worth mentioning that Distance Learning, because it is a teaching modality that makes use of technological means, demands access to internet of good quality, and it is impossible that students reach a level of satisfaction without it (PEREIRA; RODRIGUES, 2021).

3. Methodology

A descriptive study was held, through a quantitative approach, using a questionnaire. The survey was conducted with graduates of UFSM's distance learning courses. From 2007 to 2020, 7783 undergraduate and postgraduate students graduated from UAB/UFSM in 27 courses (13 undergraduate and 14 specialization), 2759 (35.45%) in undergraduate courses and 5024 (65.55%) in postgraduate courses, which form the target audience of this study. For data collection, a questionnaire was applied through Google Forms. The access to the instrument was sent to the target audience through email, through the available information in the records of the Education Information System (SIE), at UFSM, on April 30, 2021, and it was available until June 02, 2023. When the access term was done, there were 712 valid instruments. The project was approved by the National System of Information on Ethics and Research involving Human Beings (SISNEP) – CAAE (Certificate of Presentation for Ethical Consideration): 45118321.3.0000.5346.

The questionnaire has a block of nine items on the evaluation of elements that motivated the choice of the course, in a Likert type scale of 5 points (1 – Nothing important, 2 – Little important, 3 – Indifferent, 4 – Important and 5 – Very Important) and another block with 11 items that refer to the offer and the study conditions during the course (1 – Very bad, 2 - Bad, 3 - Indifferent, 4 – Good and 5 – Very good). The satisfaction with the course is evaluated through the question “What is your level of satisfaction with the course?”, which was evaluated through Likert type scale with five points (1 – Totally dissatisfied, 2 - Dissatisfied, 3 - Indifferent, 4 - Satisfied and 5 – Very Satisfied). To end the instrument there are the graduate’s profile questions.

Analytically, the study was developed in three stages: descriptive analysis, factorial analysis and multiple regression analysis. In the first analysis, it characterized the respondents’ profile, as well as described the graduates’ evaluation in relation to the elements that motivated the choice of the course, the offer and experienced study conditions. In order so, there were presented the means, frequencies and percentages for each of the variables.

In the second one, aiming to know the existing dimensions in the studied variables, the exploratory factorial analysis was applied, with rotation method of orthogonal type, of orthomax approach, in order to reduce the amount of variables through the creation of factors (HAIR et al., 2019). For Yong and Pearce (2013), this approach is commonly used to facilitate data interpretation, once it allows the reduction of variables in a smaller group of factors.

Two tests were applied with the purpose of checking the factorability of data: Bartlett sphere and Kaiser-Meyer-Olkin (KMO). The first one is used to verify the general significance of correlation matrix and the hypothesis that there is not a correlation between the variables (identity matrix), being expected that the test presents results which are statistically significant “Sig.” < 0.05 to attest the adequacy of the use of the factorial analysis (DIAS; SILVA; MACEDO, 2019). The second one shows the proportion of data variance, and it was considered to be acceptable a KMO higher than 0.5 (HAIR et al., 2019). In order to determine the variables that should stay in the analysis, the criterion of communality was used. Then, the variables with extraction communality lower than 0.5 were successfully excluded from the factorial analysis.

In sequence, the analysis of the main components in the estimation of factor loading was held, being the most suitable method to identify the lower amount of factors which, together, correspond to the maximum variance of data (MALHOTRA, 2001). We used the criteria of eigenvalues higher than 1.0 and percentage of cumulative explained variance of about 60% for the choice of the amount of factors. And, in order to determine the reliability level of the generated factors, it was used Alpha Cronbach test, and there were acceptable for exploratory studies, values higher than 0.6 (HAIR et al., 2019). This way, the factors that show Alpha Cronbach with value lower than 0.6, were withdrawn from the study.

After this analysis, a regression was applied to identify the impact of each indicator on the studied phenomenon (MALHOTRA, 2001). As a dependent variable, it was defined “general satisfaction with the course”, and as independent ones, beyond the obtained factors (professional and personal aspects, quality of teaching and quality of equipment and installations), there were added dummies (number of hours dedicated to studies; time of graduation; internship, currently employed, intention to quit the course and level of training: undergraduate or postgraduate) and the descriptive variables of profile (income, gender, age and color). The model was tested to the normality of errors, with Kolmogorov-Smirnov test, and to homoscedasticity, with the Pesaran-Pesaran test. It was also verified the absence of multicollinearity through the factors of inflation and variance (FIV).

4. Analysis and discussion of results

With the purpose of identifying the profile of the respondents, descriptive analysis was used. There were investigated a total of 712 graduates from undergraduate and postgraduate courses, distance learning courses, at the Federal University of Santa Maria. Respondents' profile, with the distribution of frequency and percentage of variables, can be found on Table 1.

Table 1: Descriptive Statistics

Variables	Alternatives	Frequency	Percentages (%)
Gender identity	Cisgender woman	489	68.7
	Cisgender man	174	24.4
	Transgender woman	1	0.1
	Non-binary	4	0.6
	Other	11	1.5
	I prefer not to classify myself	10	1.4
	Rather not answer	23	3.2
Age*	25 to 30 years	27	3.8
	31 to 36 years	158	22.2
	37 to 42 years	213	30.0
	43 to 48 years	124	17.4
	49 to 70 years	189	26.6
Race/Color	White	595	83.9
	Black	36	5.1
	Brown	73	10.3
	Yellow	4	0.6
	Indigenous	1	0.1
Current gross monthly income	Up to \$220.00	10	1.6
	Between \$220.00 and \$440.00	82	12.9
	Between \$440.01 and \$660.00	129	20.3
	Between \$660.01 and \$880.00	111	17.5
	Between \$880.01 and \$1,100.00	90	14.2
	Between \$1,100.01 and \$1,320.00	64	10.1
	Between \$1,320.01 and \$1,540.00	32	5.0
	Between \$1,540.01 and \$1,600.00	22	3.5
	Above \$1,600.01	95	15.0

Note: *Age has been recorded and divided into five classes.

Regarding the gender, it is possible to notice that more than two thirds of graduates identify themselves as cisgender women (68.7%). Most of the respondents were between 31 and 42 years old at the moment of the survey (52.5%). It is noticed that there is a large age group, since the youngest is 25 and the oldest is 70, being 44 the mean age of respondents. About color, most of them say they are white, which corresponds to 83.9%.

In which refers to the gross monthly income during a year, it was found 20.3% with income between \$440.01 and \$660.00, followed by 17.5% between \$660.01 and \$880.00. It is also highlighted that there is an expressive number of respondents who had chosen not to answer it (77). We highlighted that according to the Continuous National Survey by Continued Sample Domiciles (PNAD Continua), which had been elaborated by the Brazilian Institute of Geography and Statistics (IBGE), referring to the year of 2021, the usual average income of all works is \$495.20. The household income per capita for individuals with complete higher education is \$785.60 for men, and \$630.80 for women (IBGE, 2021). The average wage of respondents is \$ 974.40, nevertheless higher than the national average.

Also, it is important to analyze the respondents' profile regarding the course and graduation year. Among the participants, the courses with higher representativeness in the sample are: Specialization in Educational Management (9.4%), Pedagogy (9%), Post- Graduation *Latu Sensu* in Public Management (7.6%). The lower index of participants is Undergraduate Course in Mathematics, which corresponds to a percentage of 0.3% of the sample, followed by the Undergraduate Courses in Sciences and Religion (0.7%) and Degree Course in Field Education (1%).

Public policies for the expansion of the access to higher education through distance learning, as UAB, beyond aiming to broaden the number of vacancies, and to lower the inequalities, also has the objective of educating and qualifying teachers for basic education, so that, through it, the education indexes in the country also show better performance (MENDONÇA et al., 2019). That way, through the analysis on the choice of the course, it can be verified that one of the main objectives of UAB has been fulfilled, because there is an expressive number of graduates from distance learning courses in degree courses and pedagogy, beyond other courses related to continued education as Specialization in Educational Management.

About the final year of graduation, great part of the respondents finished it between the years of 2018 and 2020, which represents a percentage of 33.1%, while 28.9% said they had ended it between the years of 2015 and 2017, followed by 27% who said it had been between 2012 and 2014, and other 11% between 2009 and 2011.

After this analysis, the exploratory factor analysis was applied to define the determinant factors of general satisfaction of graduates in the distance learning courses at UFSM. The evaluation of graduates' motivation for the choice of the course is made of nine variables. In order to analyze the factorability of data, the test KMO was used, which presented the value of 0.714, considered to be satisfactory, because it was higher than 0.5, and Bartlett sphere test, who showed value of 596.473, with significance level (Sig. 0.000), which confirmed data factorability.

In order to meet the criterion of commonality, there were successively withdrawn the variables "flexibility of distance learning modality" (0.294) and "related course to the professional activity" (0.373), where exact communality was lower than 0.5. From it, there were obtained three factors with eigenvalue higher than 1, which, together, explained 63.04% of accumulated variance.

Analyzing the structures of gained factors, the last extract value was made only by one variable, and, then, it was not possible to analyze combinations that are linearly correlated, being this factor, then, withdrawn.

And, in order to analyze the reliability of the generated factors, it was used Alpha Cronbach, which showed the level of internal consistency. Taking into consideration the exploratory character of the survey, there were considered to be acceptable results higher than 0.6. From this on, the second obtained factor, which was related to institutional aspects, with the variables "gratuity of the course" and "reputation of the institution", was not considered because it showed Alpha Cronbach of 0.349, showing internal inconsistency of the factor. The factors named "Professional and social aspects", "Institutional aspects" and "Aspects of accessibility", are described on Table 2.

Table 2: Factors extracted from variables that make part of the evaluation of the elements that motivated the choice of the course, with its loads, variance and Alpha Cronbach

Factor	Mean	Factor Load	Variance Explained (%)	Alpha de Cronbach
Professional and social aspects				
Possibility of working on something he/she had always wanted.	4.012	0.819	32.42	0.672
Possibility to contribute to the socioeconomic development of my region.	4.055	0.743		
Guidance of parents/ relatives/ acquaintances.	2.733	0.610		
Possibility of specialization after ending the course.	4.279	0.588		
Institutional aspects				
Course gratuity.	4.890	0.757	16.19	0.349
Reputation of the educational institution.	4.904	0.741		
Aspects of accessibility				
Proximity of the pole to the place of residence.	4.194	0.896	14.42	--

Analyzing the resulting factor, named "Professional and social aspects", made of four variables, two of them linked to social factors ("Possibility to contribute for the socioeconomic development of my region" and "Guidance of parents/ relatives/ acquaintances") and other two related to professional aspects ("Possibility of working on something he/she had always wanted" and "Possibility of specialization after ending the course"), it is observed that factorial loads vary from 0.819 to 0.588.

In sequence, new factorial was applied with the variables related to the assessment of the offer and the study conditions during the distance learning courses by graduates UAB/UFSM. KMO and Bartlett sphere tests showed results of 0.818 and 3217,945 (Sig. 0.000), which were satisfactory and that corroborated to data factorability.

In order to meet the parameter of communalities, there were withdrawn the variables "Internship Programs" (0.371), "Contacts with other students" (0.474) and "Opportunities for students to participate in the institution policies" (0.485), which showed results lower than 0.5. Through these adjustments, there were obtained two factors which, together, explain 69.62% of the accumulated variance, with eigenvalue higher than 1. The results are detailed on Table 3.

Table 3: Extract factors of the variables that are part of the assessment of the elements that motivated the choice for the course, with its loadings, variance and Alpha Cronbach

Factor	Mean	Factor Load	Variance Explained (%)	Alpha de Cronbach
Quality of equipment and installations				
Quality of technical equipment (eg laboratories. equipment. measuring instruments. computer lab).	3.697	0.888	53.10	0.853
Availability of technical equipment (eg laboratories. equipment. measuring instruments. computer lab).	3.719	0.879		
Quality of the pole's facilities.	4.246	0.724		
Library collection.	3.610	0.716		

Quality of teaching			16.52	0.824
Teachers' teaching quality.	4.525	0.866		
Quality of learning.	4.497	0.851		
Provision of learning materials (eg books. internet access).	4.316	0.765		
Provision of didactic material.	4.115	0.558		

The most factorial loadings are in the variables quality and availability of technical equipment (0.888 and 0.879), professors' quality of teaching and quality of learning (0.866 and 0.851). In this sense, Gomes et al. (2020) point out that the quality, the course structure and the training of the teaching staff, are determinant factors to general satisfaction and students' retention to higher education institutions. The factor's Alpha Cronbach, named "Quality of equipment and installations" was 0.853, while the one from the factor "Quality of teaching" was 0.824, both values higher to 0.7, showing high level of internal consistency.

Following, it was calculated the descriptive statistics of the three obtained factors, as it can be seen on Table 4. For each of the factors, it was calculated the weighted mean of their items, and to the weighting it was used the weight of factorial factors.

Table 4: Factors' minimum and maximum of means, median, standard deviation.

Factors	Mean	Median	Standard Deviation	Minimum	Maximum
Professional and social aspects	3.813	3.964	0.892	1.0	5.0
Quality of equipment and installations	3.818	3.960	0.887	1.0	5.0
Quality of teaching	4.389	4.565	0.667	1.0	5.0

Considering that the factors that assessed the quality of equipment and installations, as well as quality of teaching, were measured by using a Likert type scale, which varies from 1 (not important) to 5 (very important), the graduates from Distance Learning courses have an evaluation that is considered good, regarding the quality of equipment and installations, with an average of 3.818. Regarding the quality of teaching, it is considered a strong motivator, because it reached an average of 4.389, close to the maximum point of the scale, which indicated the high quality perceived by graduates. About professional and social aspects, it is observed that there is a positive average of evaluation of graduates (3.813), being originally measured, and Likert t scale that varies from 1 (very bad) to 5 (very good). The lower pattern deviation can also be found in this latter factor, showing higher homogeneity in relation to graduates' opinions.

In addition, with the purpose of identifying the main factors that influence the graduates' general satisfaction with the course, the regression analysis was used, with the stepwise method. Due to heteroscedasticity residues, it was used the robust estimation HCCM (heteroscedasticity consistent covariance matrix) (WHITE, 1980), according to Table 5.

Table 5: Satisfaction Determinants of Graduates in Distance Learning Courses at UFSM.

Model	Coefficientes	Wald's Chi ²	Sig.	FIV
Quality of teaching	0.666	319.865	0.000	1.022
Dummy Race/Color	-0.074	7.509	0.006	1.024
Dummy Drop out of course	-0.067	5.470	0.019	1.001

Note: The model was estimated stepwise, with only the significant variables remaining; Quality of teaching – 5-point Likert-type scale (1 – Slightly important and 5 – Very important); Dummy Race/Color (1 – White and 0 – Not white); Dummy Drop out of course (1 – Yes and 0 – No).

Out of the 23 variables initially proposed, only the three predictors were significant. The factors (professional aspects and people, quality of equipment and installations), the variables (age and time after graduation) and the dummies (sex, gender, income, internship, hours of study and level of training: undergraduate or postgraduate) were not significant, and they were withdrawn from the model.

The result presented a determination coefficient of 0.467, which showed that the three independent variables, together, explained 46.7% of the variations of graduates' satisfaction with the course.

About the model's assumptions, it was verified through the analysis of Durbin Watson test (1.928) that there is a lack of autoregulation because the value is close to 2. Also, the model does not show problems of multi collinearity, once the FIVs are all close to 1. And KS test (Sig., 0.000) shows that the residues distribution is not normal.

Analyzing the standardized coefficients, it is observed that the quality of teaching is the variable that most impacts in graduates' satisfaction with the course. Also, it is possible to notice that the graduates who are not white, show lower satisfaction than White people, and that those that at certain time during the course, thought about quitting the distance learning course, have lower satisfaction than those who had not considered this hypothesis.

This result corroborated with what had been discussed by Wojahn, Ramos and Carvalho (2018), who, when looking for a proposal to evaluate satisfaction with quality of teaching, reported the dimension of quality of teaching as the one that shows higher level of importance in the result. The results are aligned to those reported by Ramos et al. (2015), showing that students who intended to quit the course were unsatisfied with the course, with the institution and with the opportunities of development. In this same sense, Almeida et al. (2020) suggested that students who intend to quit the course, showed reduced academic satisfaction, considering the sample of Portuguese students in higher courses of two universities – a public and a private one.

Regarding the influence of color, it is suggested as a cause, the historical social inequality among the two groups, once when reaching better job opportunities and income (CACCIAMALI; HIRATA, 2005), white individuals showed higher level of satisfaction than individuals who are not white (in this survey considered black, brown-skinned, yellow and indigenous).

Regarding this aspect, contextual analysis may not be sufficient, so we must go back to the Brazilian colonial and slave history that remains in the country's social formation (ALVES, 2022), which consists of a structural problem, reflected in the racial division of labor. The abolition of slavery did not eliminate the domains marked by racial determinants; even after this episode, black people were excluded from the formal job market (JUNIOR, 2021). In a country where racism is a structuring element, the transition from slave labor to free labor relegated the black population to subsistence and informal jobs (ALVES, 2022). This allows us to suggest that the inequality of opportunities in the job market for non-white graduates is a major factor in the respondents' lower satisfaction with the course.

This is a problem that needs strong critical analysis and confrontation by higher education institutions. The creation of specific public policies, affirmative actions, that guarantee access and permanence, through scholarships and programs that help in the accumulation of practical experiences and the insertion of students and graduates into the job market can minimize this situation (RIBEIRO; MENDES, 2023).

Furthermore, the experience during the course can influence in satisfaction. This is because, as pointed out by Valério et al. (2021), the environment in higher education institutions can be hostile and segregating for black people, as racism, prejudice and discrimination manifest themselves in a veiled way.

Valério et al. (2021) complemented, highlighting that the main challenges encountered for black students, especially black women, in universities were: permanence, as the majority come from the public

education network, due to the history of social, economic and cultural deprivations; the feeling of not belonging to the university space, due to the lack of identification and representation; and, the difficulty in participating in academic activities, due to financial difficulties.

This discussion, combined with the lack of effective actions that seek to eliminate or minimize the problem, perpetuates academic spaces as those with a white and elitist predominance. Therefore, it is important to highlight that the greatest dissatisfaction of non-white graduates in courses is not related to skin color or ethnicity/race, but possibly to the intrinsic consequences of institutionalized racism, a complex topic that requires broad and permanent debate, especially in academic spaces, which, for Ribeiro and Mendes (2023), is achieved through the construction of student retention policies that take structural racism into account.

5. Final considerations

Distance learning that started to expand with the arising of UAB and its relevance, nowadays is recognized, especially with technological advancements which, even more, can add more possibilities to this modality. Then, investigating topics related to distance learning is of great importance, as there is an increase in the search for these courses in the last years. Also, the use of information and communication technologies is able to overcome obstacles, mainly, times and places, reaching a big number of people, simultaneously.

The survey allowed to get to know how satisfied graduates from UAB/UFSM are with their courses, as well as the main determinants that contributed to this evaluation. The results demonstrated that the graduates, on average, are happy with the course they had chosen, and they showed that the main impact factor in satisfaction, is related to the quality of teaching, or with the quality of learning, with the supply of materials to students and used methodologies.

The evidence that quality of teaching is the most influential factor in the graduates' satisfaction, and it is fundamental for the universities to understand the need of stimulating the qualification of the teaching staff, to stimulate learning techniques and invest more efforts in the use of methodologies, information and communication technologies, as a way of boosting satisfaction and increase the number of students who finish the course.

In turn, low levels of satisfaction are possible predictors for the evasion in universities, and that graduates do not feel prepared for the labor Market, beyond causing problems to mental and physical health, because when expectation is frustrated with the course, it can cause suffering and stress. To know the determinants that cause (dis) satisfaction is an important measure for the improvement of these indexes, because the dissatisfaction with many aspects of the academic experience is one of the main factors in the problem.

Also, as determinants of the satisfaction of graduates from EAD/UFSM courses, in this case, reducing satisfaction, are the intention to drop out during the course and the racial condition, considered of non-white students. However, skin color itself may not indicate the highest or lowest level of satisfaction, but reflects a set of socioeconomic situations that may lead to non-white students having less satisfaction with the courses offered by the institution.

As limitation, it is highlighted that the investigated sample refers, exclusively, to graduates from distance learning courses /UFSM, and it is not possible; however, the generalization of results for other institutions; although, in general they were aligned to the evidences. For further studies, it is suggested the reapplication of the instrument in graduates from other public and private universities, in different places, so that it can broaden the sample and make possible a comparison of satisfaction between other realities, more deeply investigating the issue.

Biodados e contatos dos autores



PONTES, V. S. is a Lawyer and Government Advisor at the Attorney General's Office of the Municipality of Santa Maria. Graduated in Law from the Faculty of Law of Santa Maria (FADISMA). Master's student on the postgraduate course in Public Administration at the Federal University of Santa Maria (UFSM). ORCID:0000-0003-3210-5360

E-mail: vanessa-spontes@hotmail.com

ORCID: 0009-0008-2980-7664



MATHEIS, T. K. is PhD student in Administration from the Federal University of Santa Maria (UFSM), researcher in Public Administration and construction and validation of measures for Public Management.

E-mail: taiane.keila@acad.ufsm.br

ORCID: 0000-0003-2427-878X



VIEIRA, K. M. is Ph.D. in Administration from the Federal University of Rio Grande do Sul (UFRGS). Professor at the Federal University of Santa Maria. She teaches and advises on the Graduate Program in Public Administration and the Graduate Program in Management of Public Organizations. Her academic interest areas are construction of scales, student evaluation, distance learning, evaluation of public policies. She has over than 150 journal articles published.

E-mail: kelmara.vieira@ufsm.br

ORCID: 0000-0003-2427-878X



BENDER FILHO, R. is Ph.D. in Applied Economics from the Federal University of Viçosa (UFV). Professor at the Federal University of Santa Maria. He teaches and advises on the Graduate Program in Public Administration and the Graduate Program in Management of Public Organizations. His academic interest areas are student evaluation, distance learning, evaluation of public policies and public finance. He has over than 50 journal articles and 18 book chapters published.

E-mail: reisoli.bender@ufsm.br

ORCID: 0000-0002-1019-4414



RIBEIRO, V. M. P. is Master's in Public Administration from the Federal University of Santa Maria (UFSM); Executive Secretary at the Educational Technology Coordination at UFSM.

Email: victor-matheus.ribeiro@ufsm.br

ORCID: 0000-0002-6467-9257

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