EmRede
Revista de Educação a Distância

UniRede

EmRede, v.11. 2024

Quality in Distance Higher Education: Student Evaluation

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Abstract: The objective of this study is to analyze the quality of distance education courses through student evaluation, considering several dimensions such as: teachers, teacher feedback, tutors, virtual learning environment, among others. The research methodology was quantitative, survey-type, using descriptive statistics. The results show that students evaluate the courses as high quality.

Keywords: Distance education; course quality; student evaluation; higher education

Qualidade no Ensino Superior a Distância: avaliação discente

Resumo: O objetivo deste estudo é analisar a qualidade dos cursos a distância por meio da avaliação dos discentes, contemplando várias dimensões como: professores, *feedback* dos professores, tutores, ambiente virtual de aprendizagem, entre outras. A metodologia da pesquisa foi quantitativa, tipo *survey* com uso da estatística descritiva. Os resultados indicam que os discentes avaliam os cursos como de alta qualidade.

Palavras-chave: Educação a distância; qualidade dos cursos; avaliação discente; ensino superior

Calidad en la Educación Superior a Distancia: evaluación discente

Resumen: El objetivo de este estudio es analizar la calidad de los cursos a distancia a través de las evaluaciones de los alumnos, abarcando diversas dimensiones como: profesores, feedback de los profesores, tutores, entorno virtual de aprendizaje, entre otros. La metodología de investigación fue

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DOI: http://doi.org/10.53628/emrede.v11i.1073 ISSN 2359-6082

cuantitativa y se utilizó estadística descriptiva. Los resultados indican que los estudiantes califican los cursos como de alta calidad.

Palabras clave: Educación a distancia; calidad de los cursos; evaluación estudiantil; educación superior

Recebido em: 2024-08-16

Aceito em: 2024-10-24

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DOI: http://doi.org/10.53628/emrede.v11i.1073 ISSN 2359-6082

1 INTRODUCTION

Assessing quality in higher education is not an easy task, as it requires a broad management vision (Silva, 2016). In this sense, one of the operational obstacles to course evaluation is the lack of standardization (Ortiz-López; Olmos-Migueláñez; Sánchez-Prieto, 2021). Despite the disagreements, practices aimed at contributing to course quality have been intensively debated by higher education institutions (HEIs).

In recent decades, there have been changes in traditional forms of learning, which have led to the emergence of more plural, dynamic, and reflective educational modalities, in a way responding to the needs of society (Oliveira; Nascimento, 2020). As a result, distance education (EaD - in Brazil) occupies an important place in higher education, as it promotes professional, social, and educational development (Santos; Giraffa, 2017).

Distance education is a teaching and learning modality in which teachers and students are geographically separated; it also includes continuing education, vocational training, supplementary or professional training, teacher qualification, student specialization, and even as a complement to presential courses (Moran, 2009). Distance education is associated with the development of technologies, that is, with contemporary tools that are increasingly inserted in the teaching environment, such as social networks, WhatsApp, Facebook, and Instagram, boosting the educational digital transmutation (Barrichello *et al*., 2021).

Despite the importance of technology, distance education is stigmatized because of the perception of low quality (Hodges *et al*., 2020). According to data from the National Student Achievement Examination (Enade), one-third of distance education courses received grades 1 and 2, meaning that they were considered to be of low quality (Brasil, 2023). This situation is all the more worrying in a country where distance education is experiencing a significant expansion in terms of enrolments and vacancies. Distance learning courses have a complex structure since the teaching-learning process requires space-time variables and trained professionals such as teachers, tutors, and coordinators (Hodges *et al*., 2020). Terçariol *et al*. (2016) mention that online courses need to be constantly monitored and evaluated, given their diverse organization and the challenges they present. Therefore, it is necessary that the evaluation system for distance education meets its specificities, with responsive parameters (Netto; Giraffa, 2015). Distance education is globalized and people seek professional and continuing education in it, aiming at better opportunities in the job market (Fratucci,

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2015; Ribeiro; Freitag; Sellitto, 2018). Therefore, these questions constitute a provocation to evaluate the quality of distance learning courses.

Therefore, this study aims to investigate the quality of distance education courses based on student evaluations. Thus, this work is based on using the student evaluation scale for distance higher education (AVEAD) proposed by Santos (2023). The article is justified by the fact that the researched university does not have a consolidated evaluation model for its distance education courses, which allows a detailed diagnosis. Thus, it is understood that the development of an evaluation methodology can help to understand the scenarios that are sometimes confusing and not obvious. In this case, valid instruments are solutions to reach a more realistic view of the problems, especially when it comes to the quality of the courses.

2 QUALITY IN DISTANCE EDUCATION

Quality, in general, is a concept that is intensely discussed in the most diverse fields of knowledge (Mangini; Urdan; Santos, 2017). In education, the topic is an indispensable premise for educational policy proposals in Brazil (Pimentel; Nonato; Sales, 2021). However, quality cannot be considered as an abstract concept without a connection to reality. Therefore, it is important to emphasize that the subjects participating in the evaluation cannot be considered as clients or consumers since education cannot be considered as a product (Moraes; Kalnin, 2018).

Given the many definitions of quality in education, five possibilities can be considered for higher education: the first definition is treated as a phenomenon of excellence or exceeding standards; the second concerns compliance with specifications; the third deals with concepts related to purposes of conformity or purposes conceived according to the object or service; the fourth is based on the cost-benefit binomial, in the use of public resources; the last states that quality in education should be transformative (Souza, 2017). Thus, complex meanings and dimensions are visualized, each of which may include several variables. Obviously, the meanings include technical, scientific, social, political, and also economic aspects.

Regarding the legal order, in Brazilian higher education, both face-to-face and distance, quality is regulated by the guidelines expressed by the National System for the Evaluation of Higher Education (Sinaes), which has the functions of evaluation, regulation, and supervision (Brasil, 2004). The system basically has three phases of internal and external institutional evaluation of courses and

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students, in addition to indicators used as parameters to assist managers in their decisions and ensure the expression of results for society (Lopes; Guimarães, 2023).

In addition to Sinaes, Distance Education specifically has a guiding tool called "Quality References for Higher Education", designed in 2003 and updated in 2007 (Brasil, 2007). This document provides guidance on issues of supervision, regulation, evaluation, and structuring of Distance Education and presents the basic dimensions to promote the quality of distance education courses (Brasil, 2007). In this sense, it is through quality assessment that data and information are externalized for adequate educational planning. Thus, there are several dimensions for quality in the assessment process, depending on the objectives, methods, and application tools (Moraes; Kalnin, 2018).

Among other recent evaluation models adapted to the Distance Education scenario, there is the Avead evaluation scale developed by Santos (2023), which is a multidimensional instrument that includes teacher evaluation, teacher feedback, tutors, virtual learning environment, presential support center, teaching materials, in-person meetings, coordination services, benefits of Distance Education, student self-regulation and satisfaction.

Despite the growth of distance education and the technological changes it has undergone, it still lacks quality assessment due to its specificities. The analysis of course characteristics is a relevant factor that makes it possible to contribute to student retention, to promote training policies so that educational actors review their practices, and to promote incentives for student participation. Moreover, continuous assessment can allow the creation of innovative academic indicators.

3 METHODOLOGICAL PROCEDURES

The research was carried out at the Federal University of Santa Maria (UFSM), which has a total of 23,818 students and offers 265 undergraduate and graduate courses, both presential and distance education (UFSM, 2024). The type of research is characterized by being descriptive, with data collection carried out through a survey. The data analysis technique is descriptive statistics, which describes and organizes the characteristics of the observed set, facilitating the researcher an efficient examination in the understanding and performance of the data (Fávero; Belfiori, 2022).

The Avead scale[1], The Avead scale proposed by Santos (2023) was available from May to September 2023 to a population of 1,162 active and regular students of higher education courses in

[1] Available at: https://docs.google.com/document/d/1-WpRvjvyyv7f06lX5F94OkiLM3XsE30G__Qgvd1xEhU/edit

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distance education, through the UFSM questionnaire system. The research was approved by the Human Research Ethics Committee (CAAE: 63224022.2.0000.5346) and the respondents signed the Free and Informed Consent Form (TCLE). The average time to complete the questionnaire was 15 minutes.

The instrument was structured into 12 blocks, with the first and second blocks dealing with issues related to teachers' performance and their feedback. The third block, about tutors, presents statements about their performance. The fourth and fifth blocks deal with the conditions of the technological and physical infrastructure (virtual learning environment and presential support centers). The sixth block discusses teaching materials, while the seventh block evaluates presential meetings at the centers. The eighth block contains questions related to the performance of the coordination services. The ninth, tenth, and eleventh blocks measure issues related to intrinsic aspects of students, such as beliefs about the benefits of distance learning, self-regulation during the course, and satisfaction with other aspects. Finally, the last block deals with the sociodemographic profile of the respondents. A Likert-type scale was used, with a 5-level degree of agreement, where 1 - strongly disagree, 2 - disagree, 3 - indifferent, 4 - agree, and 5 - strongly agree.

4 ANALYSIS OF RESULTS

Of the total of 1,162 students enrolled in higher education courses at UFSM, 337 valid responses were obtained. In order to better understand the sociodemographic characteristics of the students, Table 1 was prepared.

Table 1 – Profile of respondents by gender, age group, marital status, ethnic group, monthly income and occupation

Items	Alternatives	Frequency	(%)
Sex	Male	85	25,20
	Female	251	74,50
	I prefer not to answer	1	0,30
Age groups	From 19 to 29	62	18,50
	From 30 to 39	145	43,20
	From 40 to 49	89	26,50
	From 50 to 64	40	11,90
Marital status	Single	129	38,30
	Married/stable relationship	188	55,80
	Separated/divorced	18	5,30

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Items	Alternatives	Frequency	(%)
	Widower	1	0,30
Ethnic group	White	262	77,70
	Black	19	5,60
	Brown	54	16,00
	Indigenous	1	0,30
	Other	1	0,30
Gross monthly income	Up to R$ 1,320.00	74	22,00
	Between R$1,320.01 and R$2,640.00	87	25,80
	Between R$2,640.01 and R$3,960.00	57	16,90
	Between R$ 3,960.01 and R$ 5,280.00	49	14,50
	Between R$5,280.01 and R$6,600.00	22	6,50
	Between R$6,600.01 and R$9,240.00	28	8,30
	Between R$ 10,560.00 and R$ 13,200.00	10	3,00
	Between R$13,200.01 and R$26,400.00	8	2,40
	Above R$ 26,400.00	2	0,60
Occupation	Public servant	179	53,30
	Salaried employee	66	19,60
	Liberal professional	9	2,70
	Self-employed	25	7,40
	Business owner	2	0,60
	Other occupation	28	8,30
	I don't work	27	8,00

Source: Research data (2024).

Most of the respondents are female (74.50%), married (55.80%), white (77.70%), have some kind of job (91.90%), and (79.20%) have a gross monthly income between one and four minimum wages. The high percentage of women in distance education may be related to the existence of undergraduate courses, which are the focus of federal public policy, and which are less sought after by men (Brasil, 2022). In terms of age, more than half of the students are between 30 and 49 years old, suggesting that distance education courses may be an opportunity for this group to return to their studies (Ishida; Stefano; Andrade, 2013).

In terms of academic profile, a significant proportion of students are enrolled in undergraduate courses (63.20%). The majority started their studies in the second semester of 2022 and the first semester of 2023 (75%), and more than half (51.30%) entered the UFSM through the entrance exam. The highlights are the Pedagogy courses (16.90%), followed by Rural Education (13.10%), with specializations representing 36.80% of students. The other courses, such as Religious Studies, Special Education, Computer Science, Physics, Geography, Portuguese Language, and Spanish Language, together cover 33.20% of the respondents.

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In order to achieve the objective of the study, the quality of the courses was evaluated within the framework of the Avead scale. Therefore, descriptive statistics were carried out with the levels of agreement and the average of each item, starting with the analysis of the dimension "Teachers", as shown in Table 2.

Table 2 – Descriptive statistics of the teachers dimension

Items		(%)				
	Average	12	22	32	42	52
The teaching materials provided by teachers are satisfactory for the teaching-learning process.	4,06	3,90	7,10	13,10	31,50	44,50
In general, teachers are didactic in presenting the content, contributing to my understanding.	3,95	4,20	11,90	11,60	29,40	43,00
Teachers use diverse methodologies, favoring distance learning.	3,92	6,20	9,80	14,20	25,50	44,20
Teachers use different methodological forms for learning, such as animations, videos, audio, texts, simulations, questionnaires, assessments, etc.	3,99	5,30	8,90	11,00	31,50	43,30
Teachers motivate students to actively participate in activities.	3,93	5,00	10,10	14,80	27,30	42,70
Teachers maintain constructive interactions with students.	3,83	4,20	13,10	16,30	28,50	38,00
Teachers establish relationships between the contents of their subjects and the contents of the course.	4,24	1,80	3,90	11,00	35,30	48,10
Teachers comply with the subject programs presented.	4,23	1,80	5,90	8,90	34,70	48,70
Teachers demonstrate concern about the teaching-learning process in distance education.	3,86	6,50	9,80	16,30	25,50	41,80
Teachers demonstrate mastery of the content taught.	4,51	0,90	1,50	6,20	28,80	62,60
Teachers prepare assessments that are compatible with the subject content.	4,09	4,50	8,00	9,20	30,90	47,50
Teachers present subject programs appropriately.	4,14	2,10	8,00	8,30	37,10	44,50
Teachers actively participate in the subjects.	3,85	5,60	11,60	13,90	30,00	38,90
Teachers are open to dialogue when assisting students.	4,09	4,20	6,20	12,50	30,30	46,90
Teachers follow the criteria established in learning assessments (tests, assessment activities, exams, etc.).	4,28	2,70	4,20	8,60	31,50	53,10
Teachers tend to foster an atmosphere of respect, preserving the image of the institution, colleagues and academics.	4,49	1,50	0,90	7,10	27,90	62,60
Teachers encourage research and extension activities.	3,75	8,60	11,30	16,30	24,00	39,80

Source: Research data (2024).

Most students tend to agree with the teachers' performance, as the averages for the items were higher than four. The items "Teachers demonstrate mastery of the content taught" and "Teachers

[2] Degrees of agreements: 1 – I totally disagree, 2 – I disagree, 3 – indifferent, 4 – I agree, 5 – I totally agree.

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usually foster an atmosphere of respect, preserving the image of the institution, colleagues and academics" deserve special mention, as they were rated satisfactory by more than 90.00% of students. Teachers are essential actors for successful learning, especially in online environments where it is crucial to devote more time to support and interact with students who often feel lonely during their studies (Liaw; Huang; Chen, 2007).

Next, questions related to teacher feedback are assessed in Table 3.

Table 3 – Descriptive statistics of the teacher feedback dimension

Items		(%)				
	Average	1	2	3	4	5
After the activities, teachers provide feedback on these.	3,78	7,10	9,50	14,80	35,00	33,50
After the assessments, teachers provide feedback.	3,69	8,60	10,10	18,10	30,00	33,20
Teachers respond to questions quickly.	3,77	5,60	10,70	18,40	32,00	33,20

Source: Research data (2024).

It was noted that the mean scores for all items were greater than 3.50, which represents a level of agreement greater than 60.00%. Feedback is essential to motivate students to complete activities and other tasks because physical and visual contact is limited in the distance learning environment. Therefore, teachers and tutors should encourage student participation (Vieira, 2021). In this sense, student evaluation of feedback allows educators to broaden their understanding of what should be maintained and what can be improved.

Next, in order to review the performance of tutors, Table 4 was organized.

Table 4 – Descriptive statistics of the tutors dimension

Items	(%)					
	Average	1	2	3	4	5
The tutors satisfactorily encourage the completion of the activities.	4,01	5,60	5,60	16,90	25,20	46,60
Tutors instill confidence in students.	4,11	2,70	5,90	14,20	31,80	45,40
Tutors are efficient in finding solutions to problems when requested by students.	4,08	3,90	6,20	15,10	27,30	47,50
Tutors clarify students' demands, questions and doubts through communication tools (forums, *Google Meet* , *WhatsApp* group , social networks).	4,17	3,00	4,20	14,50	29,70	48,70
Tutors use technological resources to improve the teaching-learning process.	3,88	5,30	10,70	16,00	26,40	41,50
Tutors are available for synchronous tutoring sessions.	3,96	5,30	8,00	16,90	24,90	44,80

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Items	(%)					
	Average	1	2	3	4	5
Tutors demonstrate understanding of the content during the teaching-learning process.	4,18	2,10	3,30	16,90	29,70	48,10
Tutors provide timely feedback on students' questions and doubts.	3,99	4,70	7,40	13,90	31,80	42,10

Source: Research data (2024).

Students rated the tutors' performance as satisfactory, with averages above 4.00. The items that received a high level of agreement from the respondents, more than 75.00% each, were: "Tutors demonstrate understanding of the content during the teaching-learning process", "Tutors clarify students' demands/questions/doubts through communication tools (forums, Google Meet, WhatsApp group, social networks)", and "Tutors are efficient in finding solutions to problems when requested by students". A study of 585 students from public and private institutions, through the analysis of mentions, found that tutors are essential in teaching and that their role is directly related to pedagogical actions that encourage students to learn how to learn (Ferreira; Mourão, 2020).

The lowest ratings, although still satisfactory, were for the items "Tutors use technological resources to improve the teaching-learning process" and "Tutors provide timely feedback to students' questions and doubts". Regarding feedback from tutors, it is understood that it is fundamental for the development of learning. In addition, it is necessary to add that feedback is not only a student's right, but a primary need to be met, as it is a criterion for promoting affective learning, whether in person or at a distance (Santos; Fialho; Sousa, 2020).

Next, there is the evaluation of the virtual learning environment (AVA), which includes the study of technological resources. Table 5 shows the results.

Table 5 – Descriptive statistics of the AVA dimension

Items	(%)					
	Average	1	2	3	4	5
I find the information I need for learning in the AVA.	4,23	1,50	2,40	12,80	38,30	45,10
The various information and communication technologies available in the AVA are efficient.	4,23	1,20	2,70	12,80	38,60	44,80
The AVA provides interaction between tutors, teachers, colleagues via chat, forums, discussion groups, etc.	4,28	1,20	3,00	10,40	37,70	47,80
I consider the AVA to be suitable for the teaching-learning process.	4,39	0,90	2,70	8,30	32,30	55,80

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Items	(%)					
	Average	1	2	3	4	5
AVA notifications make it easier to organize my activities.	4,25	2,40	2,70	11,60	34,40	49,00
AVA Technical Support is responsive when I need assistance.	4,14	1,50	1,20	21,70	32,90	42,70
The use of the AVA plagiarism assessment system contributes to the teaching-learning process.	4,20	1,80	1,20	19,00	31,50	46,60
The synchronous tools of the AVA (chats, *Big Blue Button*); *Google* (*Google Meet*), *WhatsApp* group and the asynchronous ones (emails, videos, recorded classes, etc.) comply with the learning objectives.	4,23	2,70	2,70	10,70	37,10	46,90
The AVA has an intuitive interface, which makes navigation easy.	4,24	2,10	4,70	11,00	31,20	51,00
The Virtual Learning Environment is stable.	4,39	0,30	1,50	9,80	35,90	52,50
Teachers and tutors organize the information structure, in the AVA, in a logical sense.	4,11	3,00	6,50	12,80	32,30	45,40

Source: Research data (2024).

Since distance education courses rely heavily on technology, the virtual environment, in which practically all course activities take place, must provide students with sufficient conditions for the learning process to be effective. Thus, more than 80.00% of the UFSM students positively evaluated issues related to the stability, suitability and navigability of the AVA. The lowest level of agreement of this set, although still acceptable, fell on the item "the AVA technical support is responsive when I need help", which received 42.70% of total agreement from respondents and an average of 4.14. A comparative study conducted by Stricker, Weibel and Wissmath (2011) with students who had access to support from the AVA and others who did not, found that the former showed better results in the learning process.

Indicators that facilitate the teaching process, such as technical support, environmental design and motivation, are essential in teaching that involves the use of web tools (Cidral *et al*., 2018). The AVA should generate enthusiasm, especially among students who study entirely at a distance. Since most learning takes place through the platform, constant monitoring and support are needed to avoid potential problems with this tool.

The next step was to evaluate the physical resources, more specifically the presential support centers (PAP), as shown in Table 6.

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Table 6 – Descriptive statistics of the PAP dimension

Items	(%)					
	Average	1	2	3	4	5
The technological resources of the presential support center are adequate (computer labs, data show, among others).	4,16	2,70	2,40	20,80	24,90	49,30
The presential support center has resources (furniture, computers, classrooms, library, study room, etc.) suitable for serving students.	4,23	3,00	1,80	16,00	27,90	51,30
At the presential support center, the Internet connection is good.	4,12	4,20	2,70	19,00	25,20	49,00
The presential support center has suitable hours to serve students.	4,26	1,80	0,90	20,50	23,40	53,40
The staff at the presential support center provide good service.	4,45	1,80	0,30	12,80	22,00	63,20
The presential support center has easy accessibility in terms of travel.	4,16	3,00	2,70	19,60	24,60	50,10
The sanitary facilities and bathrooms at the presential support center are well-kept.	4,28	2,10	0,60	18,40	25,20	53,70
The library collection at the presential support center meets the course's needs.	3,93	3,60	2,10	31,80	22,80	39,80

Source: Research data (2024).

The PAPs received a relevant level of agreement for the most part, with averages above 4.00. The highest rated items, each with more than 70.00% agreement among students, relate to support such as classrooms, available computers, furniture, adequate restroom facilities, service, schedules, and location of the center. Only the item "The library collection of the personal support center meets the needs of the course" received a lower level of agreement (39.80%), with an average of 3.93.

According to Souza Júnior *et al*. (2022), it is important to continuously improve aspects related to the maintenance of the PAP, such as libraries, Internet connection and speed, and conditions for carrying out practical activities and research laboratories. Thus, the PAP, as an environment that facilitates interpersonal relationships between teachers, tutors and students, must provide the necessary environmental conditions for students to feel a greater sense of belonging to the municipality, since the opening of a PAP can be linked to the socioeconomic development of the region (Diana, 2015).

Next, in Table 7, we have the results related to the dimension of teaching materials.

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DOI: http://doi.org/10.53628/emrede.v11i.1073 ISSN 2359-6082

Table 7 – Descriptive statistics of the teaching materials dimension

Items	(%)					
	Average	1	2	3	4	5
The teaching materials present clear language, contributing to my learning.	4,13	3,00	5,00	11,60	36,50	43,90
The teaching materials are specific to the distance education modality, meeting the course objectives.	4,11	2,70	8,00	10,10	33,80	45,40
The teaching materials present updated references.	4,14	3,90	6,50	9,80	31,80	48,10

Source: Research data (2024).

An average score of 4.00 was observed for all items related to course materials. All questions received a positive evaluation, with approximately 80.00% of the students stating that they were satisfied with aspects such as objectives, updating and language of the materials. This result corroborates the findings of Souza Júnior *et al*. (2022), in which more than 75% of students rated the quality of teaching materials as sufficient. The study by Silveira and Giacomazzo (2021) on the types of teaching materials, which included 145 distance learning students in the discipline of Scientific Research Methodology, highlighted the general satisfaction of the students with the teaching materials, in line with similar issues addressed in this research.

Next, Table 8 shows the results of the evaluation of the face-to-face meetings held at the PAPs.

Table 8 – Descriptive statistics of the im-person meetings dimension

Items	(%)					
	Average	1	2	3	4	5
Participation in in-person meetings is productive.	3,83	8,60	5,90	20,80	23,10	41,50
In-person meetings are important to stimulate interpersonal relationships within the class.	4,05	6,50	6,20	14,80	20,50	51,90

Source: Research data (2024).

Both questions were rated positively by the students. It is worth noting that 72.40% of them considered the need for face-to-face meetings to motivate the class as relevant, with an average of 4.05. It is known that in-person meetings are reduced in distance learning courses; however, the relational context must be considered in the teaching-learning process so that there is stimulation and motivation, and the support of teachers and tutors is essential (Aguilera-Hermida, 2020).

The study of Bittencourt and Mercado (2014) showed that about 45.00% of the students had problems with in-person meetings, related to the non-fulfillment of requirements, as well as the low consistency of these meetings. On the other hand, as stated by Bezerra, Martins and Boyadjian (2019),

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the degree of indifference in relation to the two items evaluated may be due to the adaptation to distance education, which causes the AVA environment to overlap in interactions, that is, a new habitat is formed: the virtual social, instead of presentially.

Next, Table 9 shows the results related to the analysis of coordination services.

Table 9 – Descriptive statistics of the coordination services dimension

Items	(%)					
	Average	1	2	3	4	5
The Course Coordination provides appropriate assistance.	4,36	3,30	3,90	8,00	22,80	62,00
The Coordination of the Presential Support Center responds satisfactorily to the demands of students.	4,39	1,80	1,80	12,20	24,60	59,60
The Coordination of the Presential Support Center provides appropriate assistance.	4,38	1,80	1,80	13,10	23,40	59,90
The Course Coordination responds satisfactorily to students' demands.	4,29	4,50	3,60	9,50	23,10	59,30
The Coordination of the Presential Support Center is attentive to students.	4,44	2,10	1,50	10,70	22,00	63,80
The Course Coordination is attentive to students.	4,36	3,90	2,70	8,90	22,80	61,70

Source: research data (2024).

In this regard, the performance of the course coordinators and PAPs received a high level of agreement from the students, with more than 80.00% of them responding favorably, and averages above 4.00 in terms of service, responsiveness to needs, and attention. The results indicate that this dimension was the most highly rated. The highest averages of 4.39 and 4.44 respectively, stand out for demands and attention to students by the Pole Coordination. Similar results were observed by Sarquis *et al*. (2018), who found a satisfactory evaluation in similar items in a study with 459 students in distance education courses.

In the following, Table 10 shows the results regarding the benefits of Distance Education.

Table 10 – Descriptive statistics of the benefits of distance education dimension

Items	(%)					
	Average	1	2	3	4	5
The distance education modality stimulated me beyond what I expected.	4,20	4,20	5,60	10,40	26,10	53,70
I would recommend people to take this distance education course.	4,44	2,70	2,70	7,40	22,60	64,70
I believe that distance education is a modality that meets my needs.	4,52	1,50	2,10	3,60	29,10	63,80

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DOI: http://doi.org/10.53628/emrede.v11i.1073 ISSN 2359-6082

Items	(%)					
	Average	1	2	3	4	5
I believe that distance education has advantages, such as greater autonomy and flexibility, for example.	4,58	1,50	1,20	2,70	27,30	67,40
I believe that previous experiences with the use of technologies helped me choose this course.	4,35	1,20	3,90	10,40	27,90	56,70
I believe that the content of the distance education courses meets my expectations.	4,11	2,40	8,30	10,10	34,70	44,50

Source: Research data (2024).

Regarding the benefits of distance education, 94.70% of the students stated that they believe that distance education offers advantages such as autonomy and flexibility, and 87.30% would recommend the course to others. In the study by Souza Júnior *et al*. (2022), which considered the responses of 46,459 individuals, 82% stated that they would recommend the course. Okagawa and Cunha (2023) conducted a broader perception assessment involving students, teachers, and tutors, the majority of whom gave an average score above 9.00 on a scale of 0 to 10 for the likelihood of recommending the course.

Next, the students' perception of self-regulation during the course is verified, as shown in Table 11.

Table 11 – Descriptive statistics of the student self-regulation dimension

Items	(%)					
	Average	1	2	3	4	5
I strive to ensure that my activities are delivered.	4,57	0,30	0,90	4,50	30,00	64,40
I try hard to get good grades, even if I don't enjoy some subjects.	4,56	0,30	0,30	4,20	33,50	61,70
I want to finish the course because it is important to me.	4,81	0,30	0,00	2,10	13,60	84,00

Source: Research data (2024).

Self-regulation can be understood as a way for students to organize themselves and perceive themselves as effective in performing tasks and activities (Eom, 2012; Aguilera-Hermida, 2020; Ho; Cheong; Weldon, 2021). According to the authors, self-efficacious students have a satisfactory perception during online learning. In this sense, there is a high agreement with the desire to complete the course, with 97.60% of students expressing this desire, which corresponds to an average of 4.81.

In a later stage, the results of the satisfaction dimension were analyzed, which included the general evaluation in relation to the other dimensions, as shown in Table 12.

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Table 12 – Descriptive statistics of the satisfaction dimension

Items		(%)				
	Average	1	2	3	4	5
I am satisfied with the teachers' performance.	4,02	3,30	11,00	11,30	29,40	45,10
I am satisfied with the teaching methodology used in the teaching-learning process.	4,05	4,50	9,80	10,40	27,30	48,10
I am satisfied with my distance education course.	4,22	3,30	6,80	8,30	27,90	53,70
I am satisfied with the quality of the teaching materials.	4,17	2,70	7,10	7,70	35,60	46,90
I am satisfied with the performance of the tutors.	4,11	4,70	5,00	13,90	27,30	49,00
I am satisfied with the performance of the coordinators.	4,27	3,60	3,90	10,10	27,30	55,20

Source: Research data (2024).

It was shown that 81.60% of the students indicated that they were satisfied with the course, with an average of 4.22. There was also high satisfaction in relation to the items of PAP, AVA, teaching materials and coordination, each presenting response estimates above 80.00% of the respondents and averages above 4.00. In the South region, the satisfaction with distance education courses is higher compared to other regions of Brazil (Souza Júnior *et al*., 2022). It is noteworthy that satisfaction is a constant to be verified in distance education courses, since in several models analyzed, this issue is central in studies that discuss students' perceptions.

Finally, the overall evaluation was estimated in relation to the dimensions of the Avead scale. Table 13 shows the results.

Table 13 – Descriptive statistics with means, standard deviation (SD) and minimum and maximum values of Avead dimensions

Dimensions	Average	DP	Minimum	Maximum
Teachers	4,06	0,92	1	5
Teacher Feedback	3,75	1,10	1	5
Tutors	4,06	0,99	1	5
Virtual learning environment	4,24	0,73	1	5
Presential support center	4,20	0,86	1	5
Teaching materials	4,13	0,97	1	5
In-person meetings	3,94	1,18	1	5
Coordination services	4,37	0,86	1	5
Benefits of Distance Education	4,36	0,73	1	5
Student self-regulation	4,64	0,52	1	5
Satisfaction	4,13	0,95	1	5

Source: Research data (2024).

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DOI: http://doi.org/10.53628/emrede.v11i.1073 ISSN 2359-6082

As a conclusion, most of the students gave positive ratings to the Avead dimensions, since the averages were generally above 4.00, which means a good agreement for the items. Therefore, there was a satisfactory perception of the quality of the distance learning courses offered by UFSM.

5 FINAL CONSIDERATIONS

The aim of this study was to evaluate the quality of distance education courses, based on questions asked to UFSM students. The results showed positive evaluations in the dimensions of teachers, tutors, coordination services, PAP, AVA, and teaching materials, dimensions without which the process of structuring any distance learning course may become unfeasible.

The averages of 4.06 for both teachers and tutors stand out, demonstrating the combined importance of these actors from the students' point of view. A similar situation was perceived in relation to the AVA and the PAPs, as the averages of 4.24 and 4.20 respectively were close. This suggests that students perceive these spaces as necessary for the teaching-learning process. Mussio (2019) points out that distance education is developed in two characteristic environments, namely the AVA and the municipality where the PAP is located. Another important point was the teaching materials, which received an average of 4.13, maintaining consistency with satisfaction.

The importance of the services provided by the coordinators (course and PAP) is highlighted, with an average score of 4.37, which is relatively high. The importance of these two leaders in the implementation of teaching processes, academic management, support, attention, assistance, and encouragement to students is understood. The lowest averages observed were 3.75 for teacher feedback and 3.94 for meetings, although these values do not differ from a moderate agreement of the items. The highest averages were 4.64 for student self-regulation and 4.36 for the benefits of distance education, which can be considered more as a subjective context of the students.

This way, the study proposed to analyze important dimensions in the context of distance education and to do so, there is nothing better than to first capture the student's assessment. The Avead dimensions are considered crucial for the management of the UFSM, since within each of them there are issues that concern the pedagogical process of teaching and learning, but also points that go beyond it, such as technological equipment and physical infrastructure, for example. In distance education, the central role is no longer played by the teacher alone, but by a multidisciplinary team that must be coordinated to ensure the efficient flow of the larger process. This research went even further by

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considering dimensions that make students reflect on themselves concerning their organization for full development within the course, in order to extract and understand important nuances of the student subject.

Regarding the limitations of the study, one of them is the survey-type study, which is subject to biases of the respondents, such as giving socially desirable answers. In addition, the research was designed only with the group of students, which suggests that teachers and administrative technicians could be included as long as an adjustment is made to Avead.

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DOI: http://doi.org/10.53628/emrede.v11i.1073 ISSN 2359-6082