THE PROCESS OF KNOWLEDGE SHARING IN THE TUTORING SYSTEM: UN ANALYSIS OF THE INTRA AND BETWEEN SECTOR RELATIONS

O PROCESSO DE COMPARTILHAMENTO DO CONHECIMENTO NO SISTEMA DE TUTORIA: UMA ANÁLISE DA RELAÇÃO INTRA E ENTRE-SETORES

EL PROCESO DE INTERCAMBIO DE CONOCIMIENTOS EN EL SISTEMA DE TUTORÍA: UN ANÁLISIS DE LAS RELACIONES INTRA Y ENTRE SECTORES

Gabriel Coutinho CALVI[1]
Iara Carnevale DE ALMEIDA[2]
Letícia Fleig DAL FORNO[3]

ABSTRACT: The objective of this research is to analyze the knowledge sharing process between professionals within and between sectors of a private HEI in the distance learning modality. This study is of an applied nature with a quantitative approach through descriptive-exploratory research in HEI case study. Data collection was through an online questionnaire, 77 respondents from a population with 96 tutors, allowing 98% confidence in the analysis with 5% sampling error. This research allows us to present an overview of the processes of communication and knowledge sharing existing in the HEI case study, identifying that tutors must be in synergy with professionals from other sectors so that students can complete their assessment activities in an appropriate manner, such as also allow the refinement of pedagogical activities of the subjects.

KEYWORDS: Distance learning. Tutor. Communication process. Knowledge sharing.

RESUMO: *O objetivo desta pesquisa é analisar o processo de compartilhamento do conhecimento entre profissionais intra e entre-setores de uma IES privada na modalidade EaD. Este estudo de caso é de natureza aplicada com abordagem quantitativa através de pesquisa descritiva-exploratória em IES. A coleta de dados foi através de questionário online, 77 respondentes de uma população com 96 tutores, possibilitando 98% de confiança na análise com 5% de erro amostral. Esta pesquisa permite apresentar um panorama sobre os processos de comunicação e compartilhamento do conhecimento existentes na IES em estudo, identificando que os tutores devem estar em sinergia com os profissionais dos outros setores para que os alunos possam finalizar suas atividades avaliativas de forma adequada, como também permitir refinar atividades pedagógicas das disciplinas.*

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[1] University CESUMAR (UNICESUMAR), Maringá – PR – Brazil. Distance learning tutor. Master in Knowledge Management in Organizations. ORCID: https://orcid.org/0000-0003-3336-5033 E-mail: gabrielcalvi@hotmail.com

[2] University CESUMAR (UNICESUMAR), Maringá – PR – Brazil. IT professor and ICETI productivity fellow, Graduate Program in Knowledge Management in Organizations. PhD in Informatics. ORCID: https://orcid.org/0000-0003-3587-3883. E-mail: iara.almeida@unicesumar.edu.br

[3] University CESUMAR (UNICESUMAR), Maringá – PR – Brazil. IT professor and ICETI productivity fellow, Graduate Program in Knowledge Management in Organizations. PhD in Education Doctoral Program. ORCID: https://orcid.org/0000-0002-3102-8757. E-mail: leticia.forno@unicesumar.edu.br

PALAVRAS-CHAVE: *Ensino a distância. Tutor. Processo de comunicação. Compartilhamento do conhecimento.*

RESUMEN: *El objetivo de esta investigación es analizar el proceso de intercambio de conocimiento entre profesionales dentro y entre sectores de una IES privada en la modalidad de educación a distancia. Este estudio es de carácter aplicado con enfoque cuantitativo a través de investigación descriptiva-exploratoria en estudio de caso de IES. La recolección de datos fue a través de un cuestionario en línea, 77 encuestados de una población con 96 tutores, lo que permitió un 98% de confianza en el análisis con un error de muestreo del 5%. Esta investigación nos permite presentar un panorama de los procesos de comunicación e intercambio de conocimiento existentes en el caso de estudio de la IES, identificando que los tutores deben estar en sinergia con profesionales de otros sectores para que los estudiantes puedan completar sus actividades de evaluación de manera adecuada, como También permiten el refinamiento de las actividades pedagógicas de las asignaturas.*

PALABRAS CLAVE: *Enseño a distancia. Tutor. Proceso de comunicación. Intercambio de conocimientos.*

Introduction

Knowledge figures at the core of human thinking. Several researchers, such as Davenport and Prusak (1998), Nonaka and Takeuchi (2008), Cheng and Lee (2016) explore knowledge in its various aspects. Studies indicate that knowledge sharing is a strategic point in the evolution of an organization. Lin (2006) indicates that knowledge sharing is indispensable to elaborate new ideas and develop business opportunities, stressing the socialization and development of worker learning for a meaningful process in organizations. Wang and Noe (2010) reinforce that knowledge sharing promotes collaboration to solve problems, promote and develop new ideas, or execute new policies and/or procedures. In this paper, it is assumed that knowledge sharing occurs by the action of socializing subjective knowledge of different professionals who aim at the evolution and quality of organizational processes.

Among the different organizations, the Higher Education Institutions (HE) that offer the Distance Education modality (DE) must follow quality benchmarks of the Ministry of Education (MEC) that provide rules for pedagogical and organizational planning (TARCIA *et al.*, 2019). Alarcon (2015) points out that the creation of new courses is related to the formation of new teams, composed of professionals from different areas, and the needs of the courses offered by the HEI in EaD modality.

To distinguish the agents of the EaD system - face-to-face and distance tutoring, course coordination, content teachers, materials team and administrative staff - the HEIs follow the

descriptions of the document for DE (BRAZIL, 2007). However, each HEI can adopt methodological particularities, adapting these professional profiles established in the quality benchmarks for DE of the MEC and, also, defining new characters that meet the needs of the HEI (BRAZIL, 2007).

Based on the prerogatives presented above, this article presents a private HEI as a case study, operating in DE modality, which distinguishes "tutoring" sectors (offline and online) and "course coordination agents" (course coordinator, online tutors, pedagogical tutors and formative teachers). Offline tutors are responsible for the feedback on activities evaluations (tests, forums, practical activities, among others) developed by students during the course; and online tutors support students in solving operational and pedagogical problems, becoming an active subject in the participation of these students' pedagogical practice (BRAZIL, 2007).

In order for the activities performed in this HEI to be adequate, it is important to have intra and inter-sector synergy in this HEI, where the processes are based on the sharing of knowledge between offline tutors and the other agents that integrate each course offered. This communication process is what determines the good functioning of the processes, besides allowing a communication "without noise" (BENTES, 2009).

This paper intends to present an analysis of the relationship between offline tutors and the other agents of the HEI courses. This study is justified because, by analyzing how the sharing of knowledge between different DE professionals occurs, it is possible to better understand both the processes and the roles performed by the agents of this DE. As a result, positive points and flaws were detected, allowing the refining of processes and, consequently, enhancing the learning process of the student in his learning path.

Methodology

This study is of applied nature, with quantitative approach, through descriptive-exploratory research conducted at the HEI under study, according to Santos (2005), Fleury and Werlang (2017). It is emphasized that the research is descriptive-exploratory because there are gaps both in relation to the communication processes in DE at the HEI and in the structuring of knowledge sharing of the different professionals of this HEI. Table 1 presents the different roles of the professionals of this HEI.

Chart 1 – Function of DE professionals at the HEI under study

SECTOR	PROFESSIONAL	FUNCTION
Tutorial *Offline*	Tutor *Offline*	Responsible for correcting activities and sending feedback to students via the online platform.
	Managerr	Responsible for managing the team of offline tutors in the development of their activities.
	Supervisor	Responsible for maintaining the standard of quality and performance of the offline tutors' work.
Courses Agents	Coordinator	Responsible for the undergraduate course as well as for the entire pedagogical project and the teaching plan.
	Teacher Trainer	Responsible for teaching the classes and preparing the evaluation activities
	Tutor *Online*	Responsible for direct communication with the student, answering questions regarding the content provided by the courses.
	Pedagogical Tutor	Provides assistance to the coordinator in developing course strategies and assists students with operational problems.

Source: Prepared by the authors

The data collection instrument was an online questionnaire made available through the Google Forms platform, where the respondents are offline tutors and the questions aim to understand what the perceptions of these tutors are regarding intra-sector and inter-sector knowledge sharing (i.e., with the course coordination agents). Since this research involves people, the ethical standards and rules of scientific research were guaranteed, with approval by the Ethics and Research Committee under CAAE number: 18189119.2.0000.5539. The questionnaire was pre-tested with a group of offline tutors and course coordination agents, with no need for changes. The data were analyzed in order to enhance the communication and sharing system among DE agents.

The questionnaire was set up to ensure the confidentiality of the respondents, and sent by e-mail. The sampling technique was random, so that the sampling error and confidence level are statistically significant (BUSSAB; BOLFARINE, 2005). The sample has 77 respondents over a population of 96 tutors, allowing analysis with 98% confidence and 5% sampling error. The questionnaire was divided into five themes and contains twenty-one closed objective questions with multiple choice, dichotomous or Likert scale answers. For Likert scale answers, a Weighted Average was calculated according to the weight assigned to each answer, according

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to Chart 2; and the answers were analyzed in order to determine the level of satisfaction/adherence of the respondents according to the value range specified in Table 1.

Chart2 – Likert Scale for questions

WEIGHT	PROPOSITION MEANING
1	unnecessary, never, nonexistent
2	not needed much, sometimes not enough
3	necessary, usually sufficient
4	partly necessary, almost always, the vast majority of the time, excellent
5	very necessary, always excellent

Source: Adapted from Cunha, 2007

Table 1 – Value Range and the level of satisfaction/adherence to the issue

Value range	Level of Satisfaction/Adherence
Superior 3,6	Strong
Between 2,6 e 3,5	Medium
Inferior to 2,5	Weak

Source: Prepared by the authors

Results and Discussion

This section presents the analysis of the data obtained with the HEI's offline tutors - the professionals responsible for the evaluation of the activities developed by the students - according to the five themes presented in the questionnaire.

Characterization of the respondents

The questions presented in Chart 3 aim to characterize the respondents in terms of how long they have been working, the areas in which offline tutors work, and to detect their understanding about training and qualification to perform their function.

Chart 3 – Time of work, area of activity, training and qualification

	How long have you worked at the institution?
.1	In which of the major areas is the course you work in located:
	When integrating tutoring have you undergone any specific training to act in your activity?
.1	Do the trainings and capacitations meet your needs to perform your tasks?
	What is the relevance of periodical improvements (workshops, lectures and lectures)?

Source: Prepared by the authors

Regarding **question 1**, 31.2% (24 tutors) have been working at the HEI between 1 and 3 months; 14.3% (11) between 4 and 6 months; and 48.1% (37) have been working for more than a year. This denotes a balanced team of more experienced tutors and tutors in the process of learning. This is relevant as it allows for more diverse answers about the experience of these tutors. Regarding **question 1.1**, the respondents are from the areas of Undergraduate Studies (26 tutors), Engineering (12), Management (20), Design (4), Food and Beverage (2), Health and Well-being (11), and Social Responsibility (2). It is noteworthy that the number of offline tutors per area in this HEI is differentiated, depending on the number of students enrolled. Therefore, these data indicate that there was strong adherence of tutors in the various areas of knowledge in the HEI.

The dichotomous answers to **questions 2 and 2.1** indicate, respectively, that 80.5% (62 tutors) have undergone specific training, and 90% (63) indicate that the training contributed to the execution of their tasks. Therefore, the HEI promotes training for the development of the activities performed by offline tutors.

According to Table 1 and Likert scale answers to **question 3**, 40.3% (respectively, 11.7%, 6.5% and 1.3%), corresponding to 31 (respectively, 9, 5 and 1) tutors for "necessary" (respectively, "partially necessary", "not very necessary", "unnecessary"). The Weighted Mean was 3.83, indicating a <u>strong level</u> of satisfaction/adherence by offline tutors about the training provided.

Relationships between Offline Tutors and Offline Tutors with Online Tutors

The questions presented in Chart 4 inquire about the relationship between offline tutors, and offline tutors with online tutors, when there is a need to solve problems and pedagogical adversities during the correction of the evaluative activities.

Chart 4 – Relationship between: offline-offline tutor and offline-online tutor

| | | Have you ever faced any adversity in the execution of your tasks due to lack of knowledge about the subject to be evaluated? |
		When you have pedagogical difficulties in the evaluation of your activities (forums, maps and exams), do you ask for help to a fellow teacher in order to discuss the subject being evaluated?
	.1	IF YES, do you manage to achieve any positive strategy to finish your assessment?
		When you have pedagogical difficulties in the evaluation of your activities (i.e. forums, maps and tests), how often do you turn to the course facilitator to discuss about the evaluated theme?
	.1	Thinking about the times when you turned to the course facilitator to solve pedagogical difficulties/doubts. Were they solved?

Source: Prepared by the authors

The dichotomous answers of **question 4** show that only 45.5% (35 tutors) of the offline tutors have already faced adversities in the execution of their tasks due to lack of knowledge on the subject to be evaluated.

The dichotomous answers to **questions 5 and 5.1** indicate that 100% of the offline tutors look for help from another colleague in the same sector when they have pedagogical difficulties in evaluation, in order to discuss the problem; and that 100% of the difficulties are solved after this help. Therefore, there is a conception of teamwork in the purpose of problem solving and support network, in line with what Schuelter (2010), Nunes (2013), Rissi (2013) and Lenzi (2014) present about management practices and knowledge sharing among members of the sectors. Next, the Graph in Figures 1 and 2 present, respectively, answers to **questions 6 and 6.1.**

Figure 1 [4]– Frequency in which offline turns to online when adversities arise
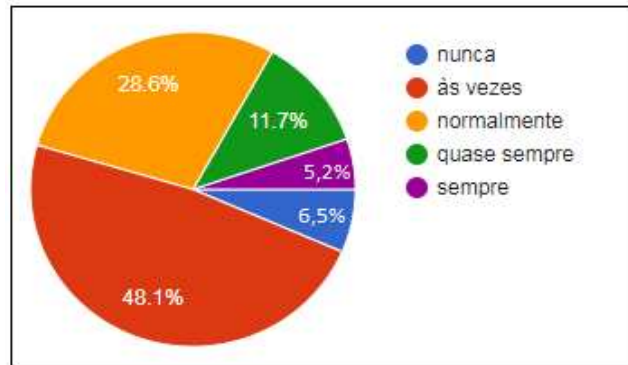
Source: Prepared by the authors

As per Table 1 and Graph in Figure 2 - with Likert scale responses where 48.1% (respectively, 28.6%, 11.7%, 6.5% and 5.2%) correspond to 37 (respectively 22, 9, 5 and 4) tutors - the value of 2.61 for Weighted Mean indicates that there is an average level in the frequency of times the offline tutor seeks out the online tutor when pedagogical adversity arises.

Figure 2 [5]- Solving pedagogical adversities when the offline turns to the online
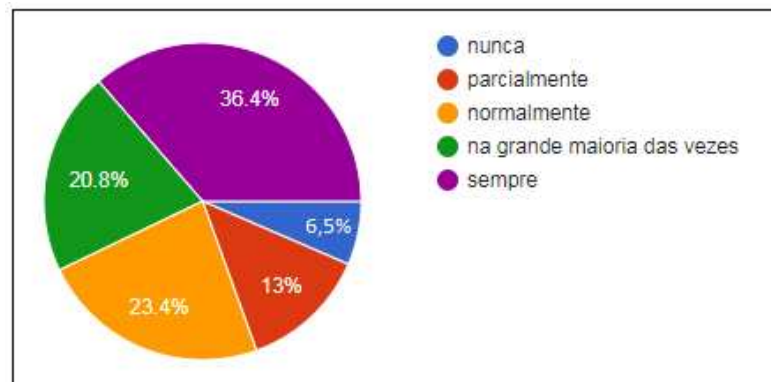
Source: Prepared by the authors

According to Table 1 and the Graph in Figure 2 - with Likert scale responses where 36.4% correspond (respectively, 23.4%, 20.8%, 13% and 6.5%) to 28 (respectively, 18, 16, 10 and 5) tutors - the Weighted Mean value of 3.68 indicates that there is a strong level of times that adversities are solved when the offline tutor looks for the online tutor.

Therefore, it is observed that the interaction between offline tutor and online tutor can be enhanced if there is more fostering about the importance that joint work has for the

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[4] nunca = never; às vezes = sometimes; normalmente = often; quase sempre = usually; sempre = always.
[5] nunca = never; parcialmente = partially; normalmente = often; na grande maioria das vezes = most of times; sempre = always.

development between individuals. Nunes (2013) and Lenzi (2014) emphasize the relevance of knowledge sharing among members of the same team or even different teams.

Intra- and Inter-Sector Knowledge Sharing

   Questions 7, 8, 8.1, 9, 10, 11 and 12, presented in Table 5, seek to verify the sharing of knowledge among offline tutors, as well as between offline tutors and the other agents involved (i.e. coordinator, online tutor, pedagogical tutor, and teacher trainer), when non-conformities are detected in the pedagogical material, in the question bank, among others.

Chart 5 – Intra- and inter-sector knowledge sharing

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	How would you rate the sharing of knowledge between you and the subject facilitator?
	By having more knowledge sharing (between you and the subject facilitator), do you think your assessments can be facilitated and your performance can be enhanced?
	How do you formulate feedback to a student about the practical activities he/she has done?
0	Is the course notified when you detect a pedagogical problem in the evaluation of the course subject you are working on - such as badly formulated questions, errors in the course material, among others?
0.1	IF YES, is the problem solved by the course?
1	How much interest do the course coordinator and the online tutor show when you present some idea and/or suggestion to improve the pedagogical part of the course?
2	Considering the people who work in the course, with whom do you share the most about the adversities of the activities?

Source: Prepared by the authors

   According to Table 1 and the results of question 7, presented in the Graph in Figure 3 - with Likert scale responses where 44.2% (respectively, 20.8%, 16.9%, 14.3% and 3.9%) correspond to 34 (respectively 16, 13, 11 and 3) tutors - the Weighted Mean value 3.17 means that offline tutors indicate average level for knowledge sharing between offline tutor and online tutor.

   Therefore, given that there is no effective sharing of knowledge between members of different sectors, this may negatively impact the construction and management of knowledge that exists in the HEI in the form of intellectual capital and/or organizational capital, just as Wiig (1997) indicates when talking about knowledge construction and sharing, which tends to expand knowledge not only among individuals, but also of the organization.

Figure 3 [6]– Knowledge sharing between offline tutor and online tutor (1)
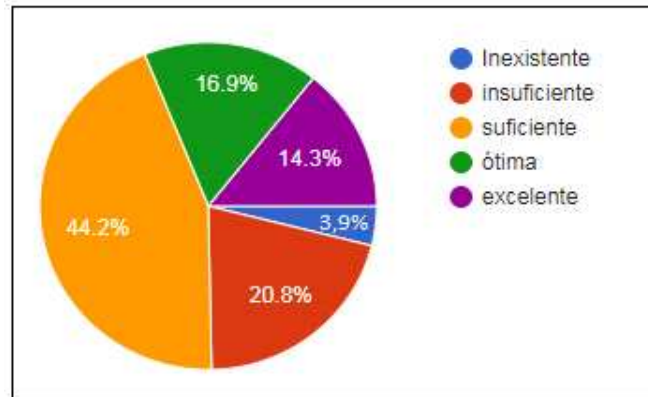
Source: Prepared by the authors

The dichotomous responses to **question 8** indicate that 93.5% (72 tutors) stated that greater sharing would increase their performance during their evaluations. This reinforces the importance of awareness that knowledge sharing among members of different sectors allows maximizing the results of DE as a whole, as indicated by the research of Nunes (2013) and Lenzi (2014) on knowledge sharing in DE for the development of teams and the HEI.

The graph in Figure 4 corresponds to the answers of question 9, where 48.1% (37 tutors) develop the feedback and, later, present it to the online tutor of the subject; the variable "others" represents 14.2% (11 tutors), as presented in Table 6.

Figure 4 [7]– Knowledge sharing between offline tutor and online tutor (2)

Source: Prepared by the authors

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[6] Inexistente = Non-existent; Insuficente = Insufficient; Suficiente = Sufficience; Ótima = Great; Excelente = Excellent

[7] Eu mesmo desenvolvo o feedback pois tenho autonomia, apresento só depois para o tutor online da disciplina= I develop the feedback myself because I have autonomy, I present it only afterwards to the online tutor of the subject; Eu desenvolvo o feedback, apresento ao tutor online da disciplina e, juntos, chegamos a um modelo final de feedback= I develop the feedback, present it to the online tutor of the course, and together we come up with a final feedback template; Eu desenvolvo o feedback e corrijo as atividades sem apresentar o feedback ao tutor online da disciplina = I develop the feedback and correct the activities without presenting the feedback to the online tutor of the course; Outros = Others

Chart 6 – How offline tutors formulate feedback

An alignment meeting is held, the correction criteria are established by the mediator, from there I formulate the feedback and before the corrections I share it with colleagues in the sector for possible improvements.
The mediator develops the feedback, which is presented to me and discussed. If necessary, adjustments are made.
I develop the feedback, the discussion with the mediator takes place for punctual alignments and for criteria of attribution/distribution of the grade to be considered.
I align with the facilitator, assemble the feedbacks with my colleagues who will be correcting the same activity, and then make the corrections.
The feedback is done and discussed among the tutors, to come to a final model together. The mediators only give verbal orientation on how the feedback model should be.
Mediation gives the division of the grades they want, and from this, I prepare my feedback, which is not seen by them.
It is developed among the daytime colleagues together with the mediators and, later, passed on to me.
After the alignment on how the feedback will be, I develop it by myself.
I develop the feedback, present the mediator with only the grading criteria and we come to a conclusion.
I develop it together with the other tutors and then we forward it to the mediator for approval.

Source: Prepared by the authors

In the dichotomous answers to **question 10**, 88.3% (68 tutors) indicated inconsistencies in the course materials. In the dichotomous answers of question 10.1, 70.6% (48 tutors) of the respondents indicate that the problem is solved. The rate of solved problems can be seen as a positive factor.

The responses to **question 11** are presented in the graph in Figure 5, where the percentage 53.3% (41 tutors) are for those who "show no interest" and "I don't have that kind of relationship with the course". From these percentages, it is observed that the acceptance of knowledge sharing of offline tutors with the agents directly linked to the course deserves to be better worked out if there is a collaborative space or alignment meetings for knowledge construction.

In this aspect, the works about knowledge sharing in DE by Brito *et al.* (2012) and Rissi (2013) show the relevance of this collaborative work and how to deal with the obstacles that demotivate and hinder the sharing among DE agents.

Figure 5 – Pedagogical suggestions from offline tutor to coordinator and online tutor [8]

Source: Prepared by the authors

The answers to **question 12** are explained in the Graph in Figure 6. The percentages indicate that, among the agents involved in the undergraduate courses, the sharing relationship of the offline tutor happens more with the online tutor with 57.1% (44 tutors), where 14.3% (11 tutors) point out that there is no communication between the agents of the courses.

It is observed, therefore, that the relationship between the offline tutor and the online tutor could be enhanced in order to ensure that new communication strategies between these agents are outlined, each with their specificity and their perceptions about the work they perform. To confirm this interpretation, again the works of Nunes *et al*. (2011), Rissi (2013) and Lenzi (2014) highlight that strategy planning can ensure and potentiate sharing if spaces and a climate that facilitates the sharing action are created.

Figure 6 – Agents that offline tutors share more knowledge [9]
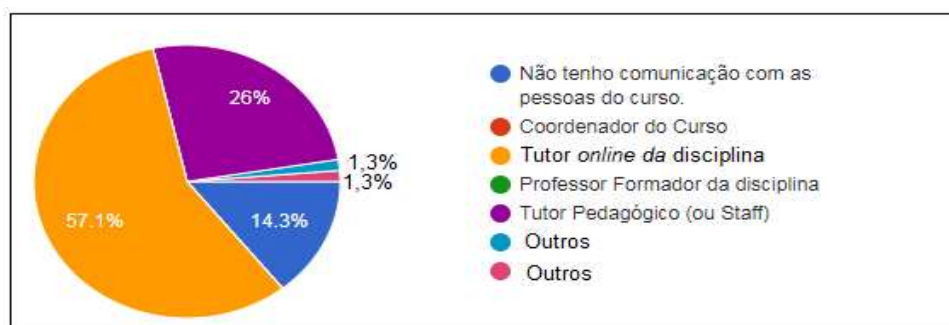
Source: Prepared by the authors

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[8] Não tenho esse tipo de relacionamento com o curso = I don't have that kind of relationship with the course; Não demonstram interesse = Show no interest; Demonstram interesse, mas as ideias e/ou sugestões não são implantadas = They show interest, but ideas and/or suggestions are not implemented; Demonstram interesse e, quase sempre, chegamos a um consenso sobre as ideias e/ou sugestões apresentadas = They show interest and, almost always, we reach a consensus on the ideas and/or suggestions presented

[9] Não tenho comunicação com as pessoas do curso = I have no communication with people from the course; Coordenador do curso = Course coordinator; Tutor online da disciplina = Online tutor; Professor formador da disciplina = Teacher of the subject; Tutor pedagógico (ou Staff) = Pedagogical tutor (or staff); Outros = Others

Sharing between Offline Tutors and their Supervisors

In Chart 7 we have **questions 13 and 14** focused on knowledge sharing between offline tutors and their supervisors.

Chart 7 – Sharing between offline tutors and their supervisors

3	Is there a follow-up by the supervisor of your area to verify that the knowledge provided to perform the evaluations is adequate?
4	Are all the adversities that occur in the performance of your activities shared with the supervisor?

Source: Prepared by the authors

Regarding **question 13**, 75.3% (58 tutors) indicated that there is monitoring by the tutor supervisor to ensure that the knowledge they have is adequate for them to be able to carry out evaluations. According to the answers to **question 14**, it can be detected that 90.9% (70 tutors) inform the supervisors about adversities. These percentages show that there is a good interaction between offline tutors and their supervisors.

**GC Barriers, Practices and Tools**

Chart 8 presents answers to **questions 15 and 16**, which aim to determine which barriers exist in the organizational environment, as well as to identify which KM practices and tools are used for sharing. The chart in Figure 7 presents the results concerning the barriers to the execution of activities and sharing.

Chart 8 – CG Practices and Tools

5	Identify possible barriers to the execution of your activities and, consequently, the efficiency of your work
6	From your experiences with evaluation, identify the tools and techniques used to promote your activities

Source: Prepared by the authors

Figure 7 – Barriers to work performance and knowledge sharing [10]
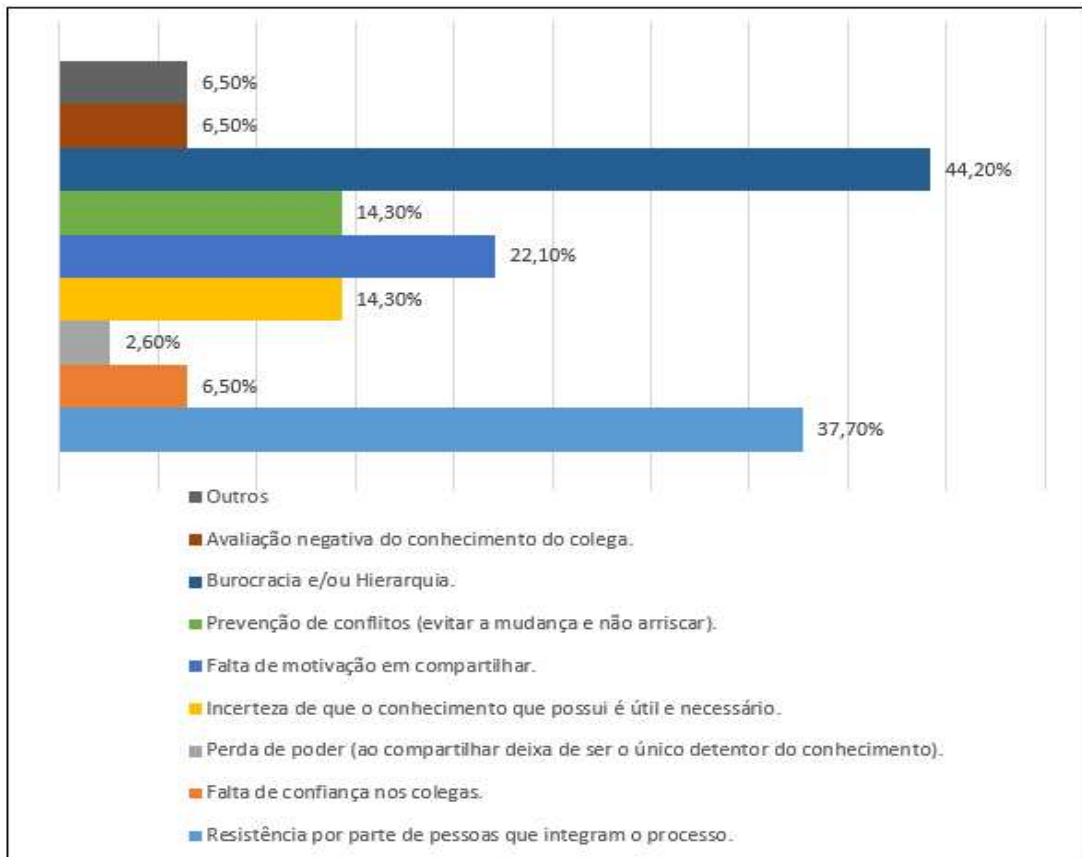
Source: Prepared by the authors

It can be seen in Figure 7 that the alternatives that stand out are 44.2% (34 tutors) for bureaucracy or hierarchy; 37.2% (29) for resistance from people who are part of the process; and 22.1% (17) for lack of motivation to share. These percentages indicate that strategies must be outlined so that bureaucratization and resistance are less relevant in the knowledge sharing process.

The HEI should therefore promote strategies to facilitate knowledge sharing among offline tutors in order to improve the communication and knowledge sharing processes that occur in the HEI. This discourse is corroborated by Disester (2001), Ghani (2009), Lenzi (2014) and Cheng and Lee (2016), when they mention the relevance of building the organizational climate for the processes and sharing among agents to happen effectively.

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[10] Outros = Others; Avaliação negativa do conhecimento do colega = Negative evaluation of colleague's knowledge; Burocracia ou hierarquia = Burocracy or hierarchy; Prevenção de conflitos = Conflict prevention; Falta de motivação em compartilhar = Lack of motivation in sharing; Incerteza de que o conhecimento que possui é útil e necessário = Uncertainty that the knowledge you possess is useful and necessary; Perda de poder (ao compartilhar deixa de ser o detentor do conhecimento) = Loss of power (by sharing you are no longer the knowledge holder); Falta de confiança nos colegas = Lack of confidence on colleagues; Resistência por parte de pessoas que integram o processo = Resistance from people who are part of the process

Question 16 makes it possible to identify which are the KM practices and tools aimed at knowledge sharing, according to APO (2010), most used by offline tutors in the routine of their activities and intra and inter-sector relationships. The results indicate that the ones with lower incidence among offline tutors are: 3.9% (3 tutors) storytelling, 6.5% (5) coaching and 5.2% (4) blogs. In contrast, those with the highest incidence were: 63.6% (49) mentoring and 61% (47) peer assistance. It is also noted that there is an acceptance of 32.5% (25 tutors) for learning by doing, and 28.6% (22) for physical spaces for collaborative work.

Based on these percentages of acceptance, the coordination of evaluation tutoring, together with the supervisors, should promote dynamics so that these practices - mentoring, peer assistance, learning by doing, and physical spaces for collaborative work - are used by all involved, in order to ensure communication and sharing among offline tutors. Furthermore, it is suggested that these practices are also used in the communication process between offline tutors and the other sectors, ensuring that there is greater efficiency in the sharing of knowledge among all agents.

Finally, based on the answers presented in this questionnaire, we outline the functioning of the current communication and sharing process in the intra and inter-sector relationship from the offline tutors' perspective. Chart 9 presents the synthesis of the diagnosis presented during the analysis of the answers to the questionnaire applied to the offline tutoring team.

Chart 9 – Summary of the questionnaire diagnostic for offline tutoring

Periodic improvements	There is a strong awareness of the relevance of periodic improvements and training among offline tutors.
Teamwork among offline tutors	There is a strong conception about teamwork in the purpose of problem solving and support network.
Relationship and sharing between offline tutor and online tutor	There is a medium sharing relationship between the offline tutor and the online tutor, the resolution of adversities that arise. However, there is a strong rate of resolution of adversities when they are shared.
Sharing between offline tutor and course agents	There is no effective sharing of knowledge among members of the different sectors, impacting negatively on the construction and management of both the intellectual and organizational capital that exists in the HEI.
Acceptance and awareness of Sharing	There is a medium acceptance and awareness that knowledge sharing among members of the different sectors allows maximizing the HEI's results.

between members of the sectors	
Relationship between offline tutor and tutorial supervisor	There is good sharing interaction between offline tutor and their supervisors.
Strategies for breaking sharing barriers	There are no strategies to facilitate knowledge sharing among offline tutors.
Practices and tools of sharing between offline tutors	Of the practices presented, it was detected that mentoring, peer assistance, learning by doing, and physical spaces for collaborative work had a relevant percentage of acceptance by the offline tutors.

Source: Prepared by the authors

This diagnosis intends, therefore, to develop strategies in order to guarantee the effectiveness of the communication process, ensuring the intra and inter-sector relationship and, also, the quality of the knowledge that the student receives.

Final remarks

In order for there to be an improvement/expansion of the process in the intra-sector relationship, it is important to empower the teams through training on the systems that the HEI uses, ensuring better communication processes developed in the sectors, so that everyone is aware of the problems and, especially, of the solutions taken. Regarding the relationship between sectors, the following points were identified as contributing to the improvement of the communication process: a greater interaction between offline tutors and formative teachers for the development of questions and/or activities and, consequently, feedback to students; periodic meetings to maximize the sharing of knowledge between offline tutors and the other agents; and training the agents for the systems made available by the HEI.

About knowledge sharing, we investigated the classification of intra- and inter-sector knowledge sharing, and the interaction between course agents and offline tutors when pedagogical adversities arise. It can be seen that there are different levels of sharing among these agents. From this relationship, the existence of good sharing between offline and online tutors and between offline and pedagogical tutors stands out.

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