EMPIRICAL RESEARCH REGARDING THE ORGANIZATIONAL COMMUNICATION WITHIN ROMANIAN UNIVERSITIES

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ABSTRACT

The specialists highlight the exceptional importance that must be given to the quality of teaching-learning methods related to the higher education Our research started from the hypothesis of the decisive importance of the quality of communication between teachers and students about their performances. In this context, we tested and verified the extent to which the choice of teaching method and the quality of the questions asked by the teachers to the future graduates influence their performances. Equally, we tested the influence of the quality of the answers made by the teachers and by the students on the performances of the future graduates. Particular attention was paid to storytelling and story writing as ways of solving and / or avoiding problems, with a direct impact on the performance of the entire academic community. In order to validate the research hypotheses, we used the method of comparing the averages using the ANOVA test, and to deepen the results we performed the Post Hoc test. The research validated that both the quality of the communication between teacher and student and the use of storytelling are likely to significantly influence the performances of the participants of the educational process in the Romanian universities.

KEYWORDS: *student-centered teaching and learning, storytelling, story writing, organizational communication, teaching methods*

1. INTRODUCTION

The specialists highlight the exceptional importance that must be given to the quality of teaching-learning methods related to the higher education (Doga-Mîrzac, 2017, 194-198; Hénard and Roseveare, 2012, 7). In this context, the university course is, like the seminar, a basic form of the didactic activity in higher education. In the seminar, the focus is on both the systematization, the deepening of knowledge and the formation of cognitive and applicative competences as well as on the development of integrative attitudes Essentially, the fundamental need for variation, differentiation, nuance and particularization of the didactic activity, expanding and accumulating the teaching experience of the teacher and of the student learning is realized through the diversity of the teaching methods and means used in teaching and learning student-centered. The issue of the effectiveness of educational communication using a dual methodological strategy was addressed by Ferrés and Masanet (2017, 1-13). They sent more than 1,200 questionnaires to the specialists from the four institutions whose activity is dedicated to persuasive communication (church, schools, journalism and advertising institutions). The results revealed the need for educators to "detach" from strictly polarized cognitive communication focused exclusively on the transmission of information, insisting on the formative side of future graduates (Hamilton, 2017) and, in particular, on theorizing the practice (Popescu and State, 2017, 19), these are sine qua non conditions for the success of a new and profoundly efficient communication process.

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2. RESEARCH METHODOLOGY & RESULTS

The results of the empirical research regarding the quality of communication within the university education units

The research project, based on the questionnaire, followed the respondents' opinion on the quality of communication within the university education centers and was located on the website http:// www.isondaje.ro/create/new/671178116/. The sample included 344 respondents who accessed this website created under crowdsourcing for universities in Bucharest, Cluj-Napoca, Iasi and Timișoara.

Research Hypotheses

The first Main Hypothesis has the following content: *The quality of the communication between the teachers and the students significantly influences their performances.*

In order to deepen the survey results, we formulated four secondary hypotheses, as follows:

Secondary Hypothesis 1.1: The choosed teaching method significantly influences the students' performance;

Secondary Hypothesis 1.2: The quality of the questions asked by the teachers to the future graduates significantly influences their performances;

Secondary hypothesis 1.3: The quality of the answers formulated by the teacher significantly influences the students' performance;

Secondary Hypothesis 1.4: The quality of student responses significantly influences their performance.

The secondary main hypothesis of the research in this section is formulated as follows:

Main Hypothesis 2: The use of storytelling (Godin, 2018; Gallo, 2016; Forman, 2013) *in universities, as a way of solving or avoiding problems significantly influences the performance of the entire academic community.*

To validate the research hypotheses, we used the method of comparing the media using the ANOVA test (Ostertagova and Ostertag, 2013; Opariuc-Dan, 2012), and to deepen the results we performed the Post Hoc test.

A. General aspects

The first part of the questionnaire is general in nature and consisted of collecting the demographic information characteristic of the 344 participants in the study, information used, subsequently, for testing the hypotheses of the research approach.

The processing of the demographic data highlighted the structure of the sample who is under investigation and is presented, synoptic, in the content of the table1:

Table 1. Statistics

	N		Mean	Median	Mode
	Valid	Missing			
1. Your residence is in ...	344	0	3.48	4.00	5
2. You live in the environment:	344	0	1.05	1.00	1
3. Your work experience:	344	0	4.66	4.00	4
4. Yours gender	344	0	1.62	2.00	2
5. You work in the higher education system	344	0	1.07	1.00	1
6. You have the following didactic function: ...	344	0	2.85	3.00	3
7. You have the following research function: ...	344	0	3.61	3.00	3
8. The fundamental field of the discipline (s) taught by you in the specializations or programs of university studies	344	0	2.04	1.00	1

*Source***:** The processing of the answers made by author using IBM SPSS

The basic statistical inventory was performed for the following variables: residence; environment; the experience; the biological genus; the type of education; the form of education; didactic function; the research function; the discipline taught. The questionnaire contains 344 respondents who provided as many valid answers (no missing answers). Female respondents predominate (mean = 1.62), having more than 6 years of work experience (mean = 4.66, median = 4, module = 4), coming from urban areas (mean = 1.05) and working in private education (mean = 1.07).
The representative didactic function is that of university lecturer (mean = 2.85), and the research one is that of scientific researcher degree I (mean = 3.61).
At the same time, the study revealed that the fundamental field of the science taught is the mathematics and the sciences of nature, followed by biological and biomedical sciences.

B. Aspects regarding the efficiency of the activity and the organizational communication
In the second part of the questionnaire we aimed to reveal the specific aspects specific to the *efficiency of the organizational activity and communication in the university level*, as perceived by the study participants.
For this purpose we asked a set of questions, with different answer options concerning the methodology and working tools used by the respondents in the didactic activity and finally I presented the results obtained (table 2):

Table 2. The methodology and working tools preferred by the respondents

Didactic methods of communication at courses and seminars	Example, demonstrative
Evaluation techniques	Example, demonstrative
The results of the evaluation in case of using the teaching methods of communication	Example, demonstrative
Teaching methods of exploration	Example, demonstrative
Teaching methods of action	Example, demonstrative
The results of the evaluation in case of the use of the exploration / action teaching methods	Example, demonstrative
Evaluation of the quality of the questions asked by the students	Example, demonstrative
Evaluation of the quality of student responses	Example, demonstrative
Qualitative level of student responses	Example, demonstrative

Source: synthesis made by the authors

The results presented in tab.no.3 confirmed that the most used didactic method of communication which is used by the respondents is the conversation (average = 4.96, out of 5 possible points), followed by story (average = 4.33) and explanation (average = 4.27).
The least used in the university teaching process were the activity with the textbook (average= 2.27) and the training (average= 2.48).
The evaluation techniques most often used by the respondents are presented in tab.nr.4, the results confirming that the most used evaluation technique used by the respondents is the final verification paper (mean = 3.97, out of 5 possible points), followed by the free exposure (mean = 3.65) and oral conversation (mean = 3.64).

Table 3. Statistics - In the courses and / or seminars you use as a didactic method of communication:

	N		*Mean*	*Median*	*Mode*
	Valid	*Missing*			
The explication	344	0	4.27	4.00	4
The description	344	0	3.68	4.00	4
The story	344	0	4.33	4.00	4
The lecture	344	0	3.55	4.00	4
Training	344	0	2.48	3.00	1
Conversation	344	0	4.96	5.00	5
Collective discussion	344	0	3.95	4.00	4
Problematizing / questioning	344	0	3.99	4.00	4
Reading or activity with the manual	344	0	2.27	2.00	2
Training by radio and / or television	344	0	2.67	3.00	3
Audio / video techniques	344	0	2.49	3.00	3

Source: The processing of the answers made by author using IBM SPSS

Table 4. Statistics - Doing the evaluation of the students' activity through:

	N		Mean	Median	Mode
	Valid	Missing			
Oral conversations	344	0	3.64	3.00	5
Free exposures	344	0	3.65	4.00	4
Current verification work	344	0	3.32	3.00	3
Final verification work	344	0	3.97	4.00	5
Tests	344	0	2.72	3.00	3
Evaluation questionnaire	344	0	3.39	4.00	4

Source: The processing of the answers made by author using IBM SPSS

The results of the evaluation show that the highest frequency of occurrence of the answers and, implicitly, the best results of the evaluation were recorded in the option of the teaching method "lecture", in the written tests (329 answers - 95.6% of the total), of the "explication" and the evaluation technique "practical tests"(327 answers - 95.1% of the total), followed by "conversation", in the case of practical tests (321 answers - 93.3% of the total). The analysis of the answers regarding the most commonly used teaching methods of action is presented in table no. 5. The most used didactic method of action is represented by the creative activities (average = 4.72, out of 5 points), followed by role-playing games (average = 4.44) and exercises (average = 4.38).

Table 5. Statistics - Use, as a didactic method of action with students:

	N		Mean	Median	Mode
	Valid	Missing			
Exercises	344	0	4.38	4.00	4
Practical verification	344	0	4.01	4.00	5
Development of projects	344	0	2.71	3.00	3
Creative activities	344	0	4.72	5.00	5
Role-play	344	0	4.44	5.00	5
Teaching by simulation	344	0	4.34	4.00	4

Source: The processing of the answers made by author using IBM SPSS

The results of the evaluation in the case of use of didactic methods of action are presented in tab.no.6. The option "*The best results obtained in the evaluation*" is in the case of *creative activities in the practical verification* (338 answers - 98.3% of the total), of the *development of projects in the written exams* and in those of "*communication*" *in the oral verification* (333 answers - 96.8% of the total).

Table 6. You recorded the best results of the evaluation of the students activity when you used:

EXERCISES		**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Oral	4	1.2	1.2	1.2
	Written	265	77.0	77.0	78.2
	Practical	75	21.8	21.8	100.0
	Total	344	100.0	100.0	
PRACTICAL VERIFICATION		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Oral	2	.6	.6	.6
	Written	107	31.1	31.1	31.7
	Practical	235	68.3	68.3	100.0
	Total	344	100.0	100.0	
DEVELOPMENT OF PROJECTS		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Oral	3	.9	.9	.9
	Written	333	96.8	96.8	97.7
	Practical	8	2.3	2.3	100.0
	Total	344	100.0	100.0	
CREATIVE ACTIVITIES		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Oral	3	.9	.9	.9
	Written	3	.9	.9	1.7
	Practical	338	98.3	98.3	100.0
	Total	344	100.0	100.0	
ROLE-PLAY		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Oral	10	2.9	2.9	2.9
	Written	5	1.5	1.5	4.4
	Practical	328	95.3	95.3	99.7
	I never used ,,Role-play,, till now	1	.3	.3	100.0
	Total	344	100.0	100.0	
TEACHING BY SIMULATION		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Oral	5	1.5	1.5	1.5
	Written	11	3.2	3.2	4.7
	Practical	328	95.3	95.3	100.0
	Total	344	100.0	100.0	
DIDACTIC METHODS OF COMMUNICATION		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Oral	333	96.8	96.8	96.8
	Written	3	.9	.9	97.7
	Practical	8	2.3	2.3	100.0
	Total	344	100.0	100.0	
DIDACTIC METHODS OF ACTION		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Oral	251	73.0	73.0	73.0
	Written	7	2.0	2.0	75.0
	Practical	86	25.0	25.0	100.0
	Total	344	100.0	100.0	

Source: The processing of the answers made by author using IBM SPSS

The evaluation of the quality of the questions asked by the students is shown in the tab. no.7, the results presented indicating the "*legitimacy of the questions*" (mean = 4.26) as the main factor describing the quality of the questions asked by the students, followed by the "*frequency of the questions*" and "*the level of complexity compared to the year of study*" (mean = 3.43).

Table 7. Statistics - On a scale from 1 („*very reduced*") till 5 („*very high*"), evaluate the quality of the questions asked by the students you worked with, regarding:

	N		Mean	Median	Mode
	Valid	Missing			
Frequency of the questions	344	0	3.43	3.00	3
Legitimacy of the questions	344	0	4.26	4.00	4
The level of complexity compared to the year of study	344	0	3.43	3.00	3

Source: The processing of the answers made by author using IBM SPSS

The evaluation of the quality of the students' answers is presented in table 8. All the analyzed variables obtained above average scores (> 3, on a 5-point scale). Representative for the respondents are, in descending order, the "f*requency of responses based on their own experiences*", with the average 3.83, followed by "*the frequency of responses based on the knowledge gained with the teaching process*", with an average of 3.76 and "*the level of complexity of the the answers compared to the study year*", with the average 3.60.

Table 8. On a scale from 1 („*very reduced*") till 5 („*very high*"), evaluate the quality of the answers of the students you work with, regarding: Statistics

	N		Mean	Median	Mode
	Valid	Missing			
Frequency of responses based on their own experiences	344	0	3.83	3.00	3
Frequency of responses based on knowledge accumulated over time	344	0	3.32	3.00	3
Frequency of responses based on the knowledge gained with the teaching process	344	0	3.76	4.00	4
The level of complexity of the the answers compared to the study year	344	0	3.60	4.00	4
Frequency of correct student responses	344	0	3.23	3.00	3

Source: The processing of the answers made by author using IBM SPSS

The qualitative level of the answers given by the students is presented in table 9, representative for the respondents being, in descending order: the quality of the answers formulated by the teacher (average = 4.34); quality of the answers provided by the teacher (mean = 3.95); quality of students' questions and answers (mean = 3.04).

Table 9. Statistics - On a scale from 1 („*very reduced*") till 5 („*very high*"), appreciate that you have registered the best results of the evaluation of the students activity due to:

		Quality of student's questions	Quaality of student's answers	Quality of your questions.	The quality of your responses
N	Valid	344	344	344	344
	Missing	0	0	0	0
Mean		3.04	3.04	3.95	4.34
Median		3.00	3.00	4.00	4.00
Mode		3	3	4	4

Source: The processing of the answers made by author using IBM SPSS

C. Questions regarding the „stories'' (Storytelling):

In the third part of the questionnaire I aimed to highlight the aspects related to the use of *"stories"*, known in the scientific literature under the name of storytelling, as a method of streamlining the activity in university education. For this purpose, I asked eight questions whose answers helped me to find out to what extent the concept of *"storytelling"* is known and used in the current activity and to understand what are the impediments in using this tool. The results recorded in the table10 revealed that the respondents heard talking about *"story"* but do not know, concretely, what this notion means (321 persons, representing 93.3% of the total study participants).

Table 10. Do you know what „story'' (storytelling) means?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I heard people talking about it, but i do not know, exactly, what it means	321	93.3	93.3	93.3
	Yes	14	4.1	4.1	97.4
	Yes, but I have heard that it is only applicable in multinational companies	1	.3	.3	97.7
	No	8	2.3	2.3	100.0
	Total	344	100.0	100.0	

Source: The processing of the answers made by author using IBM SPSS

The story is used as a working tool in the universities of the respondents in the proportion of only 3.5%, according to the results presented in table 11.

Table 11. „Do you use *"storytelling"* in the university of belonging as a way of solving or avoiding (occurrence) of problems?"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	3.5	3.5	3.5
	No	332	96.5	96.5	100.0
	Total	344	100.0	100.0	

Source: *The processing of the answers made by author using IBM SPSS*

The answers recorded in the tab.no.12 confirmed that the stories, in the form of *facts, events or events intervened in the daily activity*, quite often, capture the attention of the respondents.

Table 12. "Do you sometimes tell, together with your "guild" colleagues (department) facts, happenings or events that have occurred in your daily professional activity?"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES, every day at the "morning coffee"	138	40.1	40.1	40.1
	YES, but only sporadically, at a "whisper"	202	58.7	58.7	98.8
	NO, because we don't have time for something like that. And besides, if we have a problem, it's our problem ...	3	.9	.9	99.7
	No	1	.3	.3	100.0
	Total	344	100.0	100.0	

Source: The processing of the answers made by author using IBM SPSS

The availability of respondents to discuss with their colleagues about some problems encountered in the activity is summarized in table 13. Respondents have the openness to discuss, *daily* or *weekly*, a number of issues they have encountered.

Table 13. "Do you consider that, if you talk with colleagues about some problems encountered, you could contribute to their best solution, in order to improve the teaching act?"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Definitely YES, every day and / or week, to know better, from the "inside" what problems we face ..	332	96.5	96.5	96.5
	YES, but only as an opportunity (opportunity) to relax after a busy day (week) ...	5	1.5	1.5	98.0
	NO, because it would be a new opportunity to create potential stressed and / or stressful situations ...	4	1.2	1.2	99.1
	No	3	.9	.9	100.0
	Total	344	100.0	100.0	

Source: The processing of the answers made by author using IBM SPSS

The hypothesis who says that respondents do not know the notion of "story" is supported by the data in table 14. Thus, 334 respondents, representing 97.1% of the total participants in the study, acknowledged that, at the time of the study, they were not aware that the discussions on the problems arising in certain periods of time are part of the working tool known in the specialized literature under the name "storytelling" or storytelling.

Table 14. Did you know that the concerns or activities described are characteristic of what specialists call" stories "or storytelling?"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	2.9	2.9	2.9
	No	334	97.1	97.1	100.0
	Total	344	100.0	100.0	

Source: The processing of the answers made by author using IBM SPSS

In the opinion of the respondents (table 15), these activities are very useful and can generate the improvement of the processes within the university, constituting, finally, a good managerial tool to which the decision-makers can appeal (333 affirmative answers, representing 96.8% of the total).

Table 15. "Do you consider that such activities could lead to the improvement of the ways of carrying out all the processes within the university in which you carry out your activity and would be a good managerial tool at the disposal of the organizational decision-makers (and not only)?"

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Yes	333	96.8	96.8	96.8
	NO, not stipulated in the job description	1	.3	.3	97.1
	NO! It would be just another opportunity for gossip, "talk''	4	1.2	1.2	98.3
	NO, because it would be a waste of time and we do not need this...	4	1.2	1.2	99.4
	NO, because it could contribute to amplifying tensions between teachers	2	.6	.6	100.0
	Total	344	100.0	100.0	

Source: The processing of the answers made by author using IBM SPSS

At the end of the questionnaire, the majority of the respondents appreciated that *"storytelling"* is an excellent means of approach between the professors and students of the university of belonging – table 16:

Table 16. "Finally, do you consider that" storytelling "could be:

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	An excellent means of closeness between the professors and the students of the university	324	94.2	94.2	94.2
	A way to ensure more efficient relations between teachers and students	8	2.3	2.3	96.5
	An excellent management tool, atypical	5	1.5	1.5	98.0
	An opportunity to further complicate us, implementing speculative situations	4	1.2	1.2	99.1
	A new opportunity to give rise to erroneous interpretations of the facts	2	.6	.6	99.7
	I don't know	1	.3	.3	100.0
	Total	344	100.0	100.0	

Source: The processing of the answers made by author using IBM SPSS

Testing research hypotheses

To highlight the research results, we formulated two main hypotheses and four secondary hypotheses.
Main hypothesis 1: The quality of the communication between the teaching staff and the students significantly influences their performance.
Secondary hypothesis 1.1: The choice of the teaching method significantly influences the students' performance;
Secondary Hypothesis 1.2: The quality of the questions asked by the students' teachers significantly influences their performance;
Secondary hypothesis 1.3: The quality of the answers formulated by the teacher significantly influences the students' performances;
Secondary hypothesis 1.4: The quality of the answers formulated by the students significantly influences their performance.
Main hypothesis 2: The use of storytelling in universities as a way to solve / avoid problems significantly influences the performance of the academic community.
In order to validate the research hypotheses, we used the method of comparing the mean using the ANOVA test, and to deepen the results we performed the Post Hoc test.
In the process of verifying the first hypothesis of the research in which I resorted to this questionnaire, we defined the investigated variables as being coordinates of the vector of didactic communication, specifically for efficient communication in university education. Using the ANOVA technique we resorted to comparing the averages of 11 groups formed by the analyzed variables, for the significance threshold p = 0.05. The statistically significant results, whose significance threshold obtained from the calculation p <0.05, indicated that not all averages are equal, but did not allow us to identify which differences between the pairs of means are significant. To fill this "gap" of the research, we used the Posthoc = Tukey Alpha test (0.05) - for p = 0.05.
The null hypothesis (H0): the averages of the formed groups are equal.
Alternative hypothesis (H1): significant differences are recorded between the averages of the formed groups.
The confidence interval used for comparing the group averages in ANOVA = 95% (table 17).
The results obtained by applying the ANOVA test revealed ***two important aspects:*** 1) ***the averages of the investigated variables are not equal*** (significant differences between the obtained values are registered), which determines me to ***reject the null hypothesis*** and ***to accept the alternative hypothesis;***
2) for 8 of the 10 variables investigated, the significance threshold p <0.05. Therefore, as a consequence, the value obtained confirms that ***the variables that define the vector of didactic communication are correctly selected.***
The test I did, however, did not indicate to me the pairs of significantly different groups so, to highlight this, I performed the Post Hoc test, using the Tukey method, which allows me to compare all possible pairs of groups. The collective error rate imposed for the family of comparisons we performed is 0.05. The data are presented in table 18.
The results included in the table no.18 indicate several pairs of groups whose difference is statistically significant, for the error rate of 0.05. Thus, we can see that there are significant differences between the pairs of groups when using, for example, explanation in oral and practical exams (sig = 0.039), storytelling in oral and written exams (sig = 0.011) or storytelling in practical and written tests (sig = 0.00).

The results obtained in the application of the statistical tests allowed us to find that *the first hypothesis of the research is validated, the use of didactic methods of communication adapted to the proposed purpose, significantly influencing the students' performances.*

Table 17. ***ANOVA***

		Sum of Squares	df	Mean Square	F	Sig.
In the didactic activities use the EXPLANATION	Between Groups	2.934	2	1.467	4.839	.008
	Within Groups	103.380	341	.303		
	Total	106.314	343			
In the didactic activities use the DESCRIPTION	Between Groups	5.862	2	2.931	8.667	.000
	Within Groups	115.321	341	.338		
	Total	121.183	343			
In the teaching activities you use STORYTELLING	Between Groups	2.025	2	1.012	2.462	.087
	Within Groups	140.196	341	.411		
	Total	142.221	343			
In the didactic activities you use LECTURE	Between Groups	9.483	2	4.742	15.315	.000
	Within Groups	105.575	341	.310		
	Total	115.058	343			
In the didactic activities you use TRAINING	Between Groups	49.857	2	24.929	16.868	.000
	Within Groups	503.956	341	1.478		
	Total	553.814	343			
In the didactic activities you use CONVERSATION	Between Groups	2.105	2	1.052	29.313	.000
	Within Groups	12.241	341	.036		
	Total	14.346	343			
In the didactic activities use the COLLECTIVE DISCUSSION	Between Groups	7.547	2	3.773	7.168	.001
	Within Groups	179.512	341	.526		
	Total	187.058	343			
In the teaching activities you use PROBLEMATIZATION	Between Groups	6.004	2	3.002	38.021	.000
	Within Groups	26.923	341	.079		
	Total	32.927	343			
In the didactic activities use the READING OR THE ACTIVITY WITH THE MANUAL	Between Groups	15.514	2	7.757	26.773	.000
	Within Groups	98.800	341	.290		
	Total	114.314	343			
In the educational activities you use the RADIO / TV TRAINING	Between Groups	10.582	2	5.291	16.508	.000
	Within Groups	109.298	341	.321		
	Total	119.881	343			
In the didactic activities use AUDIO / VIDEO TECHNIQUES	Between Groups	37.577	2	18.789	19.997	.000
	Within Groups	320.396	341	.940		
	Total	357.974	343			

Source: The processing of the answers made by author using IBM SPSS

Table 18. The efficiency of the teaching methods Multiple Comparisons

Tukey HSD

Dependent Variable	(I) *Metode didactice de comunicare*	(J) *Metode didactice de comunicare*	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
The explication	Oral	Written	.601	.319	.146	-.15	1.35
		Practice	-.483*	.197	.039	-.95	-.02
	Written	Orale	-.601	.319	.146	-1.35	.15
		Practice	-1.083*	.373	.011	-1.96	-.21
	Practical	Orale	.483*	.197	.039	.02	.95
		Written	1.083*	.373	.011	.21	1.96
The description	Oral	Written	.327	.337	.596	-.47	1.12
		Practice	-.839*	.208	.000	-1.33	-.35
	Written	Orale	-.327	.337	.596	-1.12	.47
		Practice	-1.167*	.394	.009	-2.09	-.24
	Practical	Orale	.839*	.208	.000	.35	1.33
		Written	1.167*	.394	.009	.24	2.09
The storytelling	Oral	Written	-.327	.372	.653	-1.20	.55
		Practice	.464	.229	.108	-.08	1.00
	Written	Orale	.327	.372	.653	-.55	1.20
		Practice	.792	.434	.163	-.23	1.81
	Practical	Orale	-.464	.229	.108	-1.00	.08
		Written	-.792	.434	.163	-1.81	.23
The lecture	Oral	Written	-.141	.323	.900	-.90	.62
		Practice	-1.099*	.199	.000	-1.57	-.63
	Written	Orale	.141	.323	.900	-.62	.90
		Practice	-.958*	.377	.031	-1.85	-.07
	Practical	Orale	1.099*	.199	.000	.63	1.57
		Written	.958*	.377	.031	.07	1.85
The training	Oral	Written	-1.592	.705	.063	-3.25	.07
		Practice	-2.342*	.435	.000	-3.37	-1.32
	Written	Orale	1.592	.705	.063	-.07	3.25
		Practice	-.750	.823	.634	-2.69	1.19
	Practical	Orale	2.342*	.435	.000	1.32	3.37
		Written	.750	.823	.634	-1.19	2.69
The conversation	Oral	Written	.637*	.110	.000	.38	.90
		Practice	.345*	.068	.000	.19	.50
	Written	Orale	-.637*	.110	.000	-.90	-.38
		Practice	-.292	.128	.061	-.59	.01
	Practical	Orale	-.345*	.068	.000	-.50	-.19
		Written	.292	.128	.061	-.01	.59

The collective discussion	Oral	Written	-.411	.421	.591	-1.40	.58
		Practice	-.953*	.260	.001	-1.56	-.34
	Written	Orale	.411	.421	.591	-.58	1.40
		Practice	-.542	.491	.513	-1.70	.61
	Practical	Orale	.953*	.260	.001	.34	1.56
		Written	.542	.491	.513	-.61	1.70
The problematization	Oral	Written	.640*	.163	.000	.26	1.02
		Practice	-.777*	.101	.000	-1.01	-.54
	Written	Orale	-.640*	.163	.000	-1.02	-.26
		Practice	-1.417*	.190	.000	-1.86	-.97
	Practical	Orale	.777*	.101	.000	.54	1.01
		Written	1.417*	.190	.000	.97	1.86
Reading / activity with the manual	Oral	Written	-.429	.312	.355	-1.16	.31
		Practice	-1.388*	.193	.000	-1.84	-.93
	Written	Orale	.429	.312	.355	-.31	1.16
		Practice	-.958*	.364	.024	-1.82	-.10
	Practical	Orale	1.388*	.193	.000	.93	1.84
		Written	.958*	.364	.024	.10	1.82
Training through Radio / TV	Oral	Written	-1.027*	.328	.005	-1.80	-.25
		Practice	-.985*	.203	.000	-1.46	-.51
	Written	Orale	1.027*	.328	.005	.25	1.80
		Practice	.042	.383	.994	-.86	.94
	Practical	Orale	.985*	.203	.000	.51	1.46
		Written	-.042	.383	.994	-.94	.86
Audio / video techniques	Oral	Written	-1.234	.562	.073	-2.56	.09
		Practice	-2.068*	.347	.000	-2.88	-1.25
	Written	Orale	1.234	.562	.073	-.09	2.56
		Practice	-.833	.656	.413	-2.38	.71
	Practical	Orale	2.068*	.347	.000	1.25	2.88
		Written	.833	.656	.413	-.71	2.38

*. The mean difference is significant at the 0.05 level.

Source: The processing of the answers made by author using IBM SPSS

Secondary hypothesis 1.1: The choice of teaching method significantly influences the students' performance.

To validate it, we used the method of comparing averages. We defined the investigated variables as coordinates of the vector "evaluation results" and a direct consequence of the use of a teaching method used, specific to the university education.

The null hypothesis (H0): the averages of the formed groups are equal.

Alternative hypothesis (H1): significant differences are recorded between the averages of the formed groups.

The results obtained by applying ANOVA indicated that *the averages of the investigated variables are not equal, so we rejected the null hypothesis and accepted the alternative hypothesis according to*

which significant differences between the obtained values are recorded. We found that 7 out of 11 variables investigated had the significance threshold p <0.05 (table.19).

Table 19. ***ANOVA***

		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
The explanation	Between Groups	3.769	2	1.885	12.256	.000
	Within Groups	52.437	341	.154		
	Total	56.206	343			
The description	Between Groups	4.240	2	2.120	7.557	.001
	Within Groups	95.656	341	.281		
	Total	99.895	343			
The storytelling	Between Groups	.748	2	.374	.370	.691
	Within Groups	345.286	341	1.013		
	Total	346.035	343			
The lecture	Between Groups	.995	2	.498	.510	.601
	Within Groups	332.839	341	.976		
	Total	333.834	343			
Training	Between Groups	7.962	2	3.981	14.238	.000
	Within Groups	95.340	341	.280		
	Total	103.302	343			
The conversation	Between Groups	8.933	2	4.466	26.421	.000
	Within Groups	57.646	341	.169		
	Total	66.578	343			
The collective discussion	Between Groups	.375	2	.187	.270	.764
	Within Groups	236.785	341	.694		
	Total	237.160	343			
Problematization	Between Groups	3.332	2	1.666	6.002	.003
	Within Groups	94.665	341	.278		
	Total	97.997	343			
Reading / activity with the manual	Between Groups	3.140	2	1.570	36.061	.000
	Within Groups	14.848	341	.044		
	Total	17.988	343			
Training through Radio / TV	Between Groups	5.853	2	2.927	1.380	.253
	Within Groups	722.911	341	2.120		
	Total	728.765	343			
Audio / video techniques	Between Groups	8.561	2	4.281	6.648	.001
	Within Groups	219.578	341	.644		
	Total	228.140	343			

Source: The processing of the answers made by author using IBM SPSS

Following the same reasoning, we performed the *Post Hoc* test, using the *Tukey method*, which allowed us to compare all possible pairs of groups and, in addition, to identify the best results obtained from using a certain teaching method. (table 20). The test results indicated several pairs of groups whose difference is statistically significant for the error rate 0.05. Thus, we recorded significant differences between the pairs of groups when using, for example, *explanation in oral and written examination* (sig = 0.000) *or description in practical and oral tests* (sig = 0.02).

Table 20. Multiple Comparisons, Tukey HSD

Dependent Variable	(I) *Didactic methods of communication*	(J) *Didactic methods of communication*	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
The explanation	Oral	Written	.261	.227	.485	-.27	.80
		Practice	.678*	.140	.000	.35	1.01
	Written	Orale	-.261	.227	.485	-.80	.27
		Practice	.417	.265	.260	-.21	1.04
	Practical	Orale	-.678*	.140	.000	-1.01	-.35
		Written	-.417	.265	.260	-1.04	.21
The description	Oral	Written	-.538	.307	.188	-1.26	.19
		Practice	-.663*	.189	.002	-1.11	-.22
	Written	Orale	.538	.307	.188	-.19	1.26
		Practice	-.125	.359	.935	-.97	.72
	Practical	Orale	.663*	.189	.002	.22	1.11
		Written	.125	.359	.935	-.72	.97
The storytelling	Oral	Written	.069	.584	.992	-1.30	1.44
		Practice	-.306	.360	.672	-1.15	.54
	Written	Orale	-.069	.584	.992	-1.44	1.30
		Practice	-.375	.681	.846	-1.98	1.23
	Practical	Orale	.306	.360	.672	-.54	1.15
		Written	.375	.681	.846	-1.23	1.98
The lecture	Oral	Written	.577	.573	.573	-.77	1.93
		Practice	.035	.353	.995	-.80	.87
	Written	Orale	-.577	.573	.573	-1.93	.77
		Practice	-.542	.669	.697	-2.12	1.03
	Practical	Orale	-.035	.353	.995	-.87	.80
		Written	.542	.669	.697	-1.03	2.12
Training	Oral	Written	-.051	.307	.985	-.77	.67
		Practice	-1.009*	.189	.000	-1.45	-.56
	Written	Orale	.051	.307	.985	-.67	.77
		Practice	-.958*	.358	.021	-1.80	-.12
	Practical	Orale	1.009*	.189	.000	.56	1.45
		Written	.958*	.358	.021	.12	1.80
Conversation	Oral	Written	.916*	.238	.000	.35	1.48
		Practice	.916*	.147	.000	.57	1.26
	Written	Orale	-.916*	.238	.000	-1.48	-.35
		Practice	.000	.278	1.000	-.66	.66
	Practical	Orale	-.916*	.147	.000	-1.26	-.57
		Written	.000	.278	1.000	-.66	.66

Collective discussion	Oral	Written	-.123	.483	.965	-1.26	1.01
		Practice	-.206	.298	.768	-.91	.50
	Written	Orale	.123	.483	.965	-1.01	1.26
		Practice	-.083	.564	.988	-1.41	1.24
	Practical	Orale	.206	.298	.768	-.50	.91
		Written	.083	.564	.988	-1.24	1.41
Problematization	Oral	Written	.853*	.306	.015	.13	1.57
		Practice	.395	.189	.093	-.05	.84
	Written	Orale	-.853*	.306	.015	-1.57	-.13
		Practice	-.458	.357	.405	-1.30	.38
	Practical	Orale	-.395	.189	.093	-.84	.05
		Written	.458	.357	.405	-.38	1.30
Reading / activity with the manual	Oral	Written	-.009	.121	.997	-.29	.28
		Practice	-.634*	.075	.000	-.81	-.46
	Written	Orale	.009	.121	.997	-.28	.29
		Practice	-.625*	.141	.000	-.96	-.29
	Practical	Orale	.634*	.075	.000	.46	.81
		Written	.625*	.141	.000	.29	.96
Training through Radio / TV	Oral	Written	1.402	.844	.222	-.59	3.39
		Practice	-.014	.521	1.000	-1.24	1.21
	Written	Orale	-1.402	.844	.222	-3.39	.59
		Practice	-1.417	.986	.323	-3.74	.90
	Practical	Orale	.014	.521	1.000	-1.21	1.24
		Written	1.417	.986	.323	-.90	3.74
Audio / video techniques	Oral	Written	1.375*	.465	.009	.28	2.47
		Practice	.625	.287	.076	-.05	1.30
	Written	Orale	-1.375*	.465	.009	-2.47	-.28
		Practice	-.750	.543	.352	-2.03	.53
	Practical	Orale	-.625	.287	.076	-1.30	.05
		Written	.750	.543	.352	-.53	2.03

*. The mean difference is significant at the 0.05 level.

Source: The processing of the answers made by author using IBM SPSS

The results obtained lead me to the conclusion that the *hypothesis is validated* in this case as well, *the choice of the teaching method, significantly influencing the students' performances. Secondary Hypothesis 1.2: The quality of the questions asked by the students' teachers significantly influences their performances*.

In order to *test the second secondary hypothesis*, we used *the technique of comparing the averages*, as a simplified variant of the ANOVA technique for the answers recorded to the questions in table no.21.

The null hypothesis (H0): the averages of the formed groups are equal. Alternative hypothesis (H1): significant differences are recorded between the averages of the formed groups.

The data from table 21 confirmed that the averages of the formed groups are significantly different, so that the *null hypothesis is* obviously *rejected.*

The ANOVA test, for the significance threshold p = 0.05, led to the *validation of the second secondary hypothesis.*

Table.21: Report

	On a scale from 1 ("very low") to 5 ("very high"), you have recorded the best results of the evaluation of the students' activity due to the QUALITY of the QUESTIONS addressed by you.							
	Moderate		***High***		***Very high***		**Total**	
	Mean	N	Mean	N	Mean	N	Mean	N
"On a scale from 1 (" very small ") to 5 (" very high "), evaluate the quality of the answers gaved by the students you work with, based on:								
Frequency of responses based on their own experiences	3.11	19	3.87	322	5.00	3	3.83	344
Frequency of responses based on knowledge accumulated over time	2.79	19	3.33	322	5.00	3	3.32	344
Frequency of responses based on the knowledge gained with the teaching process	3.32	19	3.78	322	4.67	3	3.76	344
The degree of complexity of the answers, compared to the study year	2.84	19	3.63	322	5.00	3	3.60	344
Frequency of their correct answers:	3.05	19	3.23	322	5.00	3	3.23	344

Source: The processing of the answers made by author using IBM SPSS

Secondary Hypothesis 1.3: The quality of the answers given by the teacher significantly influences the students' performances.
In order to *test the third secondary hypothesis,* we used the *technique of comparing the media* for the answers recorded to the questions included in the table 22. As the averages of the formed groups are significantly different, the *null hypothesis is rejected* (table 22).

Table 22. Report

	On a scale from 1 ("very small") to 5 "very high", you have recorded the best results of the evaluation of the students' activity due to the QUALITY of the QUESTIONS addressed by you.							
	Moderate		***High***		***Very high***		**Total**	
	Mean	N	Mean	N	Mean	N	Mean	N
Frequency of responses based on their own experiences	3.17	18	3.08	191	4.99	135	3.83	344
Frequency of responses based on knowledge accumulated over time	2.89	18	2.85	191	4.03	135	3.32	344
Frequency of responses based on the knowledge gained with the teaching process	3.33	18	3.62	191	4.02	135	3.76	344
The degree of complexity of the answers / year of study	2.83	18	3.37	191	4.03	135	3.60	344
Frequency of their correct answers	3.00	18	3.38	191	3.06	135	3.23	344

Source: The processing of the answers made by author using IBM SPSS

The ANOVA test, for the significance threshold p = 0.05, led to the validation of the third secondary hypothesis according to which the quality of the questions asked by the students 'teachers, correlated with the frequency of the correct answers and the complexity of the answers, significantly influence the students' performances.

Secondary hypothesis 1.4: The quality of the answers made by the students significantly influences their performance.

In order to verify the veracity of the fourth secondary hypothesis, we called the ANOVA test for the analysis of the answers given in table 23. The results obtained by applying ANOVA indicated that the averages of the investigated variables are not equal and, with one exception (frequency of responses based on their own experiences), the significance threshold p <0.05 (table.23). The obtained results show that the test is conclusive and, consequently, **the hypothesis is validated.**

Table 23. *ANOVA* Test

"On a scale from 1 (" very small ") to 5 (" very high "), evaluate the quality of the answers gaved by the students you work with, based on:		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Frequency of responses based on their own experiences	Between Groups	4.841	3	1.614	1.711	.165
	Within Groups	320.714	340	.943		
	Total	325.555	343			
Frequency of responses based on knowledge accumulated over time	Between Groups	11.108	3	3.703	7.262	.000
	Within Groups	173.354	340	.510		
	Total	184.462	343			
Frequency of responses based on the knowledge gained with the teaching process	Between Groups	3.514	3	1.171	5.821	.001
	Within Groups	68.414	340	.201		
	Total	71.927	343			
The degree of complexity of the answers, compared to the study year	Between Groups	8.673	3	2.891	10.033	.000
	Within Groups	97.967	340	.288		
	Total	106.640	343			
Frequency of their correct answers	Between Groups	13.236	3	4.412	22.673	.000
	Within Groups	66.160	340	.195		
	Total	79.395	343			

Source: The processing of the answers made by author using IBM SPSS

Main hypothesis 2: The use of storytelling in universities, as a way of solving or avoiding problems, significantly influences the performance of the entire academic community. In order to test the second main hypothesis, we used the correspondence analysis technique of the answers recorded in table 24.

Null Hypothesis (H0): The answer preferences for the selected questions are equal.
Alternative Hypothesis (H1): Significant differences between the response preferences for the selected questions are recorded.

The participants of the study consider that the discussions held with the colleagues on some issues could categorically contribute to the improvement of the teaching act.

Table 24. Crosstabulation

Count

		Do you think that such activities could lead to the improvement of the methods of carrying out all the processes within the university where you operate and would be a good managerial tool available to the organizational decision-makers (and not only)?					**Total**
		Yes	*NO, because they are not stipulated in the job description*	*No way! It would be just an extra occasion for gossip, "talk", and others like that*	*NO, because I think it would be a "waste of time" and that's why we don't need it*	*NO, as it could contribute to increasing / amplifying tensions between teachers*	
Do you think that, in the situation where you discussed, together with your colleagues, some of the problems you encountered, you could contribute to their better solution, in order to improve the teaching act?	*Definitely YES, every day and / or week, to know better, from the "inside" what problems we face*	331	1	0	0	0	332
	YES, but only as an opportunity to relax, after a day (week) "loaded''	1	0	3	1	0	5
	NO, as it would be a new opportunity to create potential stressful / stressful situations	1	0	1	2	0	4
	NO	0	0	0	1	2	3
Total		333	1	4	4	2	344

Source: The processing of the answers made by author using IBM SPSS

The results obtained from the processing of the answers led us to the conclusion *that the second main hypothesis is validated, the use of storytelling in universities, as a way of solving and / or avoiding problems significantly influencing the performances. to the entire academic community.*

3. CONCLUSIONS

The results of our empirical research on the opinion of the teachers in the university education units regarding the quality of communication within them revealed some **significant aspects** such as:
1. From the demographic point of view, the surveyed sample included 344 respondents, who offered as many valid answers. Female respondents, with more than 5 years of work experience, coming from the urban environment and working in private education, predominated; the

representative didactic function is that of a lecturer, and the research level is that of a scientific researcher, the first degree; the fundamental field of the science taught is the mathematics and the sciences of nature, followed by that of the biological and biomedical sciences;
2. The most commonly used didactic method of communication to which the respondents call was designated "conversation", followed by "story" and "explanation". At the opposite end, the least used in the teaching process in the university environment proved to be "activity with the textbook" and "training";
3. As the most commonly used evaluation technique has been proved to be the "final verification paper", this being followed by "free exposure" and "final conversation";
4. The best results of the evaluations were recorded in the variant of the use of "reading" in the written tests, the "explanation" and the "practical tests", these being followed by the "conversation" in the practical tests;
5. The main factor that describes the quality of the questions asked by the students in the didactic process was identified as their "legitimacy", followed by the "frequency of questions" and "the degree of complexity, compared to the year of studies";
6. In the evaluation of the quality of the answers made by the students, the variables with the highest scores were "frequency of responses based on their own experiences", "frequency of responses based on knowledge gained with the teaching process" and "degree of complexity of responses, reported at the year of studies ";
7. the quality of the answers provided by the students was decisively influenced by the "quality of the answers gaved by the teacher", the "quality of the answers provided by the teacher" and the "quality of the students' questions and answers";
8. 93.3% of the total study participants heard about "story", but they do not know, concretely, what this means, "story" being used as a working tool in universities with a very low percentage: 3, 5%, although the description of facts, events or events produced in the daily activity, quite frequently, captures the attention of the respondents;
9. The respondents who have been involved in the research undertaken in the field of communication in higher education institutions have the necessary opening to discuss, daily or weekly, about aspects of the problems they have encountered (96.5% of the total), despite the fact that 97.1% of the study participants are not aware that this "procedure" is part of the working tool "story" or "storytelling";
10. Almost unanimously (one exception), respondents consider that "storytelling" are very useful and, as a managerial tool, can lead not only to the improvement of the activities carried out at the university level, but also to the best "Closeness" between teachers and students;
11. both main hypotheses and the four secondary hypotheses were validated, proving that:
• the choice of teaching method, as the quality of the communication process between teachers and students, significantly influences their performance;
• the performances of the participants in the educational process are substantially influenced not only by the quality of the questions addressed to the interlocutor, but also by the quality of the answers received;
• as in pre-university education units, as well as in higher education institutions, the use of "storytelling" as a way of solving / avoiding problems significantly influences the performance of the entire university education system.

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