

IMPLIED CREATIVITY IN TEACHING PRACTICES IN EDUCATION OF ADMINISTRATION IN HIGHER EDUCATION INSTITUTIONS OF SANTA CATARINA

CRIATIVIDADE IMPLÍCITA EM PRÁTICAS DOCENTES NO ENSINO DE ADMINISTRAÇÃO EM INSTITUIÇÕES DE ENSINO SUPERIOR DE SANTA CATARINA

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ABSTRACT

This article aims to contribute to the knowledge about creativity dissemination in higher education, highlighting the opinion of administration students about the impact of creative teaching practices used by teachers in private higher education institutions of Santa Catarina. The adopted method opted for the quantitative and qualitative approach: in the first stage descriptive quantitative research was performed by applying survey technique with 195 students, in the second stage of the research, semi-structured interviews with five teachers of the investigated institutions were performed. As contributions, the research presents teaching practices related to the incentive for new ideas, development of an environment for the expression of ideas, differentiation in assessment practices and the teaching methodologies, and concern for student learning that can encourage the creativity of academics. The results also point out the need of understanding the new educational context that is being built in the Brazilian higher education institutions.

Keywords: Creativity. Teaching Practices. Active Methodologies. Learning. Higher Education.

RESUMO

Este artigo pretende contribuir para o conhecimento acerca da difusão da criatividade no ensino superior, destacando a opinião de estudantes de administração sobre o impacto de práticas pedagógicas criativas empregadas pelos docentes em três instituições privadas de ensino superior de Santa Catarina. O método adotado optou pela abordagem quanti-quali: na primeira etapa se realizou uma pesquisa quantitativa descritiva, aplicando a técnica *survey* com 195 estudantes, na segunda etapa da pesquisa foram realizadas entrevistas semiestruturadas com cinco docentes da instituição pesquisada. Como contribuições, a pesquisa apresenta práticas docentes relacionadas ao incentivo para novas ideias, desenvolvimento de um clima para expressão de ideias, diferenciação nas práticas de avaliação e nas metodologias de ensino e interesse pela aprendizagem do aluno, que são capazes de incentivar a criatividade dos acadêmicos. Os resultados também apontam para a necessidade de se compreender o novo contexto educacional que está sendo construído nas instituições de ensino superior brasileiras.

Palavras-chave: Criatividade. Práticas Docentes. Metodologias Ativas. Aprendizagem. Ensino Superior.

1 INTRODUCTION

The university and teachers have a fundamental role in stimulating and empowering the creativity of future professionals. Nakano (2009) argues that teachers' attitudes directly influence students' creativity. The author highlights that this issue should be addressed in the teacher's experience: in teacher training, in the planning of the teaching-learning process, and the evaluation of professional teaching practices (NAKANO, 2009). Alencar and Wechsler (2011), referring to individuals in general, claim that it is necessary to encourage the ability to create and strengthen the personal resources of a cognitive, affective, and personality nature associated with creativity. Therefore, prioritizing the development of creativity in the student seems to be one of the most important tasks, but at the same time, the most complex. Research on the topic has brought some important results and considerations, but not enough to have a more enlightening view about creativity in higher education since there are many perspectives to consider in this analysis: institutions, programs, type of higher education, theories and principles about education, teachers, and students.

Several works have investigated and discussed the subject of creativity in Brazilian higher education: Ribeiro and Fleith (2007) discuss the perception of teachers and students in the area of undergraduate courses on practices that favor the development of creativity among students; Nakano (2009) presents a review of scientific production in the field of higher education; Alencar (2011) discusses creativity from the perspective of students and teachers; David et al. (2011) mention about creative competences in higher education; Lima and Alencar (2014) highlight the pedagogical procedures that favor the development and expression of student creativity. In general, these and other similar works converge in some conclusions: practices that stimulate questioning and challenge seem to be the ones that have obtained the best results in encouraging creativity. At the same time, the main difficulties seem to originate in the institutional environment considering the absence of an adequate pedagogical project and the low incentive for the teacher to carry out activities of this type.

Thus, currently, the importance of Higher Education Institutions (HEIs) in the process of developing individual skills is evident (SOUZA; SOUSA; CORRÊA; ZAMBALDE, 2014) and, creativity has been considered an essential competence to be developed in the student, mainly in waiting for Applied Social Sciences, which has its object of study, a reality in which human beings are the agents of change (TASSIGNY; BRASIL, 2012).

In this article, we sought to analyze the teachers' practices in private HEIs, to verify whether they are capable of promoting the development of the student's creativity. The difference between this study about previous ones is that the analyzed institutions have pointed out the need to stimulate their teachers to be more concerned with creativity in the classroom, considering this a form of differentiation in higher education.

The approach used in this research was quantitative-qualitative. In the quantitative stage, which objective was to evaluate the perception of university students about practices that favor the development of creativity, the survey technique was used in which 195 academics from the Administration course of three private universities in Santa Catarina participated. The instrument used in this stage was the Inventory of Teaching Practices for Creativity in Higher Education, developed and validated by Alencar and Fleith (2010). In the statistical analysis of this stage, the SmartPLS software was used, where the Structural Equation Modeling (SEM) technique was performed. In the second stage of the research, the qualitative one, a semi-structured interview script was developed aimed at understanding and analyzing the main trends and results obtained in the quantitative stage. Five teachers participated in this stage. The results of the interviews were analyzed using the content analysis technique.

Among the main results originated from the students' opinions, it was found that, contrary to the conclusions of other similar studies, students perceive the contribution of some practices to the development of an environment of more creativity in the classroom. They understand that their teachers seem to value original ideas during classes, they are also able to cultivate a taste for discovery and the search for new knowledge. It was also observed that the use of previously prepared tasks has managed to stimulate curiosity, as well as the use of forms of assessment that require more than the mere reproduction of the content presented in class.

Following this section, an introduction to the concept of creativity and creativity in teaching is presented. Then, there is the method used in the research. The fourth stage is dedicated to the presentation, analysis, and discussion of the results and the last one contemplates the final considerations.

2 CREATIVITY

The word creativity originates from the Latin *creare*, which means to create, to do to elaborate. In Greek, the word *krainen* (creativity) means to perform, to perform, to fill (PFEIFER, 2001). According to Duailibi and Simonsen (2009), creativity is the ability to mentally form ideas, images, systems, or structures and things that are not present or to give rise to something new, unique, and original. Kozbelt, Beghetto, and Runco, (2010) reinforce the complexity of the theme by identifying in an interesting theoretical-empirical review 10 different theories that deal with Creativity. One of them is the Systemic Theory, pointed out by Csikszentmihalyi (1988), in which it is argued that creativity emerges from three components that interact with each other, namely: the domain, the individual, and the field. From the perspective of the higher education environment, these three components express the following phenomena: mastery, the teacher's role in the transmission of new knowledge, the individual is configured as the academic who seeks to contribute to the appropriate knowledge and in the field the action of the higher education institution with its structure, rules, and support for teachers and students (CSIKSZENTMIHALYI, 1988).

Rodhes (1961) and, later, Runco (2004) identified four categories to explain the complexity of the creative approach: person, process, product, and creative environment - the 4 Ps (person, process, product, and press). The person category refers to the person's curiosity, tolerance to different ideas, intelligence, intuition, and autonomy. For Feldman, Csikszentmihalyi, and Gardner (1994), the creative person has cognitive characteristics, personality, and motivation. The process 'P' relates to 'how the creative process occurs', being guided by the time limit for the process, the opportunity to nurture positive results, and insights from the process. The product, on the other hand, concerns the characteristics of the creative product, being related to the solutions that emerged from the process. Finally, as for the creative environment - press, this concerns situations external to the individual, such as the contributions and resources available for there to be a creative process and creativity (FELDMAN; CSIKSZENTMIHALYI; GARDNER, 1994).

About the product, according to Kozbelt, Beghetto, and Runco (2010), probably the most objective approach to creativity is concentrated on this 'P', such as the products of works of art, inventions, publications, musical compositions. Regarding the concept of environment and creative person, Kozbelt, Beghetto, and Runco (2010) cite the systemic vision of Csikszentmihalyi (1988), which emphasizes the omnipresent role of the environment

and also the nature of the creative person, detailing how the environment in which the individual it is contributing to the rise of creativity. In this regard, Fleith (2011) analyzed the development of creativity in Brazilian culture, with a focus on the environment, and found that creativity is characterized as a socio-cultural and contextually incorporated phenomenon.

2.1 CREATIVITY IN TEACHING

In Brazil, the university education system has undergone a revolution for over a decade, and universities intend on offering the market an entrepreneurial student, capable of creating, adapting, and evolving ideas (FERREIRA, ALCÂNTARA; FREITAS, 2013). Thinking about this teaching context, Wechsler (2002) and Alencar (2008) point to the need to have creativity inserted as a discipline in the teachers' training. Alencar and Fleith (2004) observed that the focus on the university professor in the classroom is fundamental in the process of providing instruments for the students to develop their potential and acquire desirable skills for personal and professional fulfillment. Santeiro, Santeiro, and Andrade (2004) found that teacher preparation is one of the main factors concerning encouraging students' creativity.

Chim-Miki, Campos, and Melo (2019) sought to identify the elements and shape of creative education spaces from the perspective of the main actors involved in the scope of university education in administration. The results showed that universities need to reevaluate their physical structures and adapt them according to the business vision, adapting speeches and practices that bring changes in their most basic structure: the classroom.

There are difficulties for the insertion of creativity in the teaching environment. In the environment of Brazilian colleges, Castanho (2000) points out that there is a lack of interest in promoting creativity in university courses. Wechsler (2002) mentions difficulties, such as the lack of preparation of teachers and internal barriers, which do not allow them to dare and seek new strategies to teach. Nakano (2009) points out that teachers are poorly prepared and have difficulties in dealing with individual differences present in students, in adapting their language to the student's age group, in controlling the discipline, and inability to organize diverse classes, without compromising the contents.

But, even in the face of difficulties, it is possible to encourage creativity in the teaching environment. Alencar (1995) investigated the effects of a creativity program on students from different areas, in which he observed that there is a positive effect of the

program on the development of student's creative thinking skills. Wechsler (2002) argues that it is possible to develop creativity in teaching; however, it is important to point out that creativity is not something that happens by chance, but can be deliberately employed, managed, and developed. Dias, Enumo, and Azevedo Junior (2004) stressed that stimulating creativity can contribute to academic and cognitive performance. It is up to the educational institution to maximize the opportunities for expression of creativity in the teaching and learning processes (ALENCAR, 2007).

2.2 TEACHING PRACTICES AND CREATIVITY IN TEACHING

According to Lizote, Alves, and Teston (2020) education for science is necessarily linked to higher education. Under this understanding, it can be said that science education is equivalent to training a student who can create knowledge and who can develop creative projects in his profession. According to Alencar (2002), the appropriate use or not of instructional techniques describes both the profile of the facilitating teacher and the inhibiting teacher of the student's creative abilities. In the studies by Alencar and Fleith (2004, 2010), four factors related to creativity in the teaching environment were extracted: Incentive to New Ideas, Climate for Expression of Ideas, Evaluation and Teaching Methodology and Interest in Student Learning.

Regarding the practices that encourage creativity in students, Nakano (2009) notes that the teacher that encourages creativity creates a climate for the expression of new -ideas, encouraging students to learn autonomously and independently from the teacher. In addition, the teacher motivates students to have many ideas, promotes students' self-assessment, and proposes goals to be achieved with students (NAKANO, 2009). Alencar (2002) points out factors that stimulate creativity in the student as personality traits of the teacher, for example, self-confidence, initiative, and independence, in addition to the use of teaching methods and time provided to the student to think and develop new ideas. Alencar and Fleith (2004), dealing with pedagogical practices, observe that the typical behavior of the teacher that encourages creativity tends to value discussions and debates, encourages questioning and reflection, mobilizes interest in student learning, and reinforces personality traits, such as openness to criticism and divergent ideas, punctuality and assiduity, a sense of humor and flexibility. Almeida and Alencar (2010) value the incentive to new ideas through innovations made by teachers, to develop students' interest.

On the other hand, some practices were identified as inhibiting creativity. Some examples are the high number of students in the classroom and students with learning difficulties (ALENCAR, 2006), difficulties in dealing with individual differences (NAKANO, 2009), little variety in teaching methodologies (ALMEIDA; ALENCAR, 2010), and difficulty on the part of many teachers in breaking with past practices and incorporating new teaching strategies that contribute to the development of students' creative potential (ALENCAR; FLEITH, 2010).

Regarding the relationship between teaching practices that encourage creativity in public or private institutions, Ribeiro and Fleith (2007) observe that in private institutions of higher education there would be an ease of access and diversity of resources that the teacher has the availability to use in his / her work. discipline, as well as the quality of the classroom's physical space. Fleith (2011) points out that students from private educational institutions have a more positive perception of the classroom climate for creativity. In her research conducted in Brazil, the author found that private educational institutions, in general, offer more conditions for teaching and learning, such as materials, equipment, and opportunities for curriculum enrichment, when compared to public institutions of higher education (FLEITH, 2011). Regarding teaching practices that encourage or not creativity, we can see in Table 1, some examples of these practices in the literature.

Table 1 Elements related to teaching practices that encourage (or inhibit) creativity in the literature

Identified elements related to the teaching practices that encourage (or inhibit) creativity	
Elements that encourage creativity	Authors
<ul style="list-style-type: none"> · Teacher's personality traits: self-confidence, initiative and independence; · Environment conducive to the production of new ideas; · Teaching methodologies and time provided to the student to think and develop new ideas. 	Alencar, 2002
<ul style="list-style-type: none"> · Innovations carried out by teachers that foster students' interest in the subject; · Incentive given by the teacher to develop new ideas; · Acceptance of students' ideas; · Playful activities, · Discussion of current topics, · Acceptance of students' ideas. 	Almeida e Alencar, 2010.
Elements inhibiting creativity	Authors
<ul style="list-style-type: none"> · High number of students in the classroom and students with learning difficulties. · Few opportunities to discuss and exchange ideas with colleagues about teaching strategies · Lack of knowledge about texts on how to implement creativity in the classroom. 	Alencar, 2006
<ul style="list-style-type: none"> · Severe difficulties to deal with the individual differences present in the students. · Unmotivated teacher in view of the institutional conditions he finds in his work 	Nakano, 2009
<ul style="list-style-type: none"> · Little variety in teaching methodologies 	Almeida e

Identified elements related to the teaching practices that encourage (or inhibit) creativity	
· The diversity in the teaching methodologies used in the subjects was also pointed out by the students as one of the practices less adopted by their teachers.	Alencar, 2010.
· Lack of familiarity of teachers with the literature on creativity and how to facilitate their development and expression in students; · Difficulty on the part of many teachers in breaking with past practices and incorporating new teaching strategies that contribute to the development of students' creative potential.	Alencar e Fleith, 2010.

Source: Elaborated by the authors based on the literature (2020).

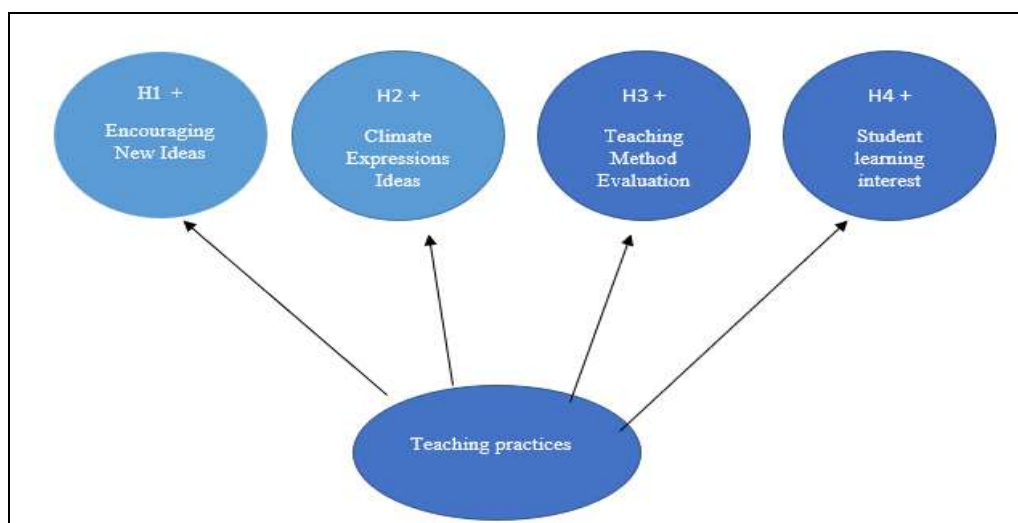
2.3 HYPOTHESES

According to Fleith (2011), Alencar and Fleith (2004, 2010), and Ribeiro and Fleith (2007), it is observed that four factors influence the teaching practices perceived by students as drivers of stimuli to creativity, being: Incentive to New Ideas, Climate for the Expression of Ideas, Evaluation and Teaching Methodologies and the Interest in Student Learning. Thus, based on the reviewed studies, it is proposed to analyze the following hypotheses:

- H1:** The incentive to new ideas is related to the teaching practices of stimulating student creativity;
- H2:** The climate for the expression of ideas is related to the teaching practices to stimulate student creativity;
- H3:** The evaluation and teaching methodology are related to the teaching practices to stimulate student creativity;
- H4:** The interest in student learning is related to the teaching practices to stimulate student creativity.

Figure 1 shows the representation of the hypotheses in relation to teaching practices.

Figure 1 Hypotheses Structure



Source: Elaborated by the authors.

3 METHODOLOGICAL PROCEDURES

The approach used in the research used was quantitative-qualitative. The study was characterized as cross-sectional, with the responses of the research participants being obtained only once (MALHOTRA, 2001). The object of investigation was Private Higher Education Institutions in Santa Catarina, in which academics and professors from Administration courses at three universities in Santa Catarina participated. This sample was chosen for convenience.

3.1 DATA COLLECTION PROCEDURES

In this study, the proposal was to identify and analyze the practices used by teachers, in private HEIs, to verify if they are capable of promoting the development of the student's creativity. For this understanding, instruments have been developed in recent years. Among the most used instruments, according to Silva and Nakano (2012) are Inventories of teaching practices for creativity (ALENCAR; FLEITH, 2004, 2010); Scale about the climate for creativity in the classroom (ALENCAR; FLEITH, 2005); Checklist of barriers to the promotion of creativity in the classroom (ALENCAR; FLEITH, 2008); Torrance Creative Thinking Tests (TORRANCE; SAFTER, 1999) and Inventory of barriers to personal creativity (ALENCAR, 2010). We opted for the use of the instrument by Alencar and Fleith (2010), as this is specific for analyzes in the university environment.

In the quantitative stage, a survey was used in three Private HEIs in Santa Catarina, applied to 195 undergraduate students in the Administration courses. As a data collection technique, the questionnaire validated by Alencar and Fleith (2010, which has closed questions in a multi-item scale (Likert scale 5 points), was used and the answers were based on the scale vary from 'I disagree' Totally 'to' Totally Agree 'The questionnaire was sent by email, using a link via Google Forms. The questionnaire by Alencar and Fleith (2010) was validated with 807 students from the Federal District of public and private institutions. In the research, Alencar and Fleith (2010) developed the exploratory factor analysis of the model, confirmatory factor analysis, and the Structural Equations Model (SEM) were developed, seeking the validation of the proposed variables to verify teaching practices.

In the qualitative stage, semi-structured interviews were conducted with five professors from the researched universities. The script was built based on the results of the

quantitative research and its purpose was to understand and analyze the main trends and results obtained in the quantitative stage.

3.2 DATA ANALYSIS PROCEDURES

For the quantitative stage, statistical analyzes were performed using the SmartPLS software. Firstly, the Confirmatory Factor Analysis (AFC) was performed, since the researched constructs were validated theoretically and empirically (ALENCAR; FLEITH, 2010). Seeking to analyze the relationship between the variables, the recommendations of Hair et al. (2006), who indicate the Structural Equation Modeling (SEM) technique. According to Hair et al. (2006), the SEM should be used when one wants to obtain an accurate representation of the reliability of the indicators used. The main purpose of SEM is to verify that the operational items used to measure the constructs are significant and that they measure what is expected.

For the adjustments of the initial model and the analysis of the results, the recommendations of Hair et al. (2014) in which, first, the model was estimated in SmartPLS, with all the original variables of the scale directed to each construct. Thus, the Confirmatory Factor Analysis (AFC) and the data verification in the AVE (Analysis of Variance), AC (Cronbach's Alpha), and CC (Composite Reliability) were performed. Then, the Pearson's Determination Coefficients Assessment (R^2) was analyzed, which indicates the quality of the adjusted model. After evaluating the structural coefficients, the Predictive Relevance (Q^2) or Stone-Geisser indicator was verified, which assesses the accuracy of the adjusted model (HAIR et al., 2014). The size of the effect (f^2) or Cohen's Indicator was also checked.

Then, the analysis of the Goodness-Of-Fit values (adherence of the model), which represents the global quality score of the adjusted model, was carried out. Tenenhaus et al. (2005), which is based on models in which all constructs are reflective, as in this case study. As the last step of estimating the model, the values and significance of the Path Coefficients (G) which indicates how much one construct is related to another were observed. The Student's t-test was used, in which values above 1.96 are considered significant at 5%, that is, the constructs are related.

In the qualitative stage, content analysis was applied. According to Bardin (1979), content analysis is a set of communication analysis techniques that, through systematic and objective procedures for describing the content of messages, obtain quantitative indicators or

not, which allow the inference of knowledge related to the production of the conditions/reception of messages. However, according to the author, content analysis is characterized as empirical and, for this reason, it cannot be developed based on an exact model (BARDIN, 1979). Nonetheless, you must follow some steps: pre-analysis, exploration of the material, treatment of the results obtained, and interpretation.

As the last step, we sought to relate the perception of academics and professors seeking a relationship between the objects of research. At this stage, there was also a list of the theory that Minayo (2000) claims to be the most commonly adopted method in the treatment of qualitative research data. Thus, content analysis was used to understand the interviews and data.

4 RESULTS

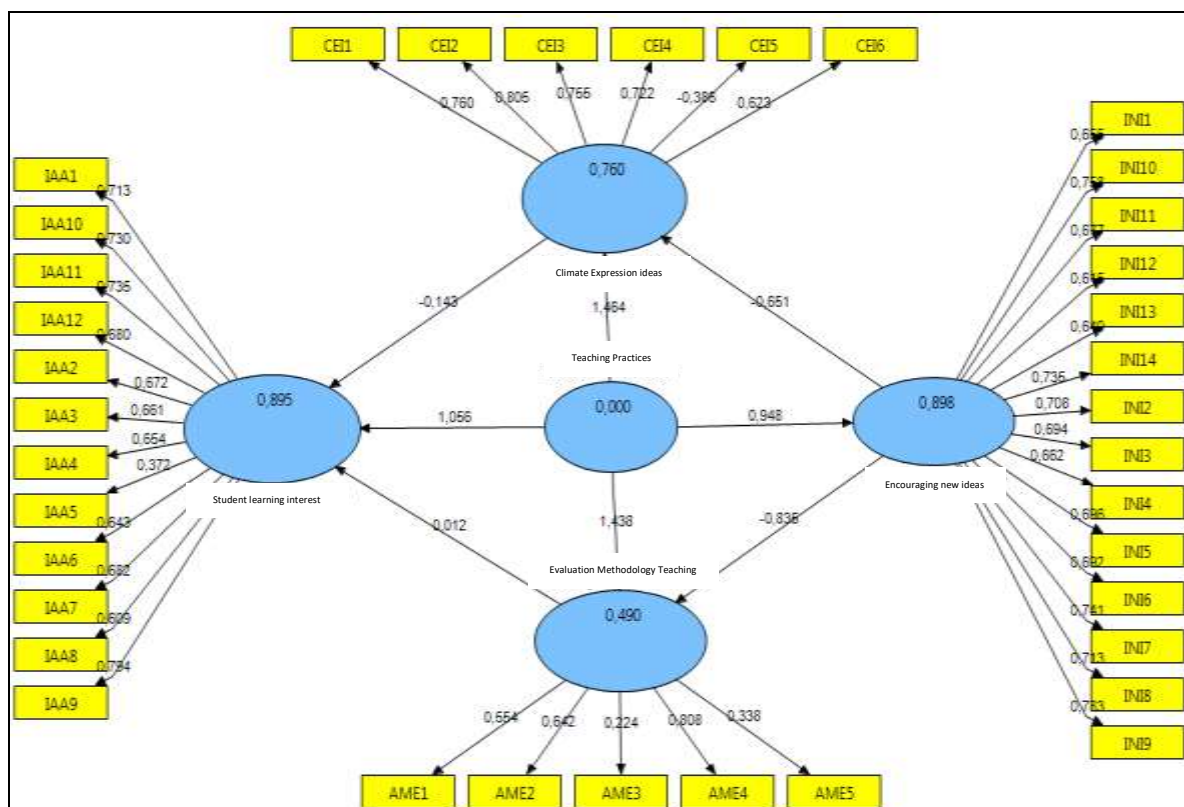
4.1 ANALYSIS OF QUANTITATIVE DATA

When estimating the initial model (Figure 2), the AFC was performed, evaluating the saturation of the model in which the AVE, AC, and CC were verified. In this case, values of the path coefficients, R^2 , f^2 , and Q^2 were not observed, as they change with each model composition. From the initial model, it was verified which variables would be eliminated because they did not have factor loads greater than 0,5 ($1 > 0,50$). However, it was expected to find loads greater than 0.70, which would be the ideal condition, but as some loads remained smaller, averages were observed ($AVE > 0.50$).

All constructs were within the appropriate parameters, except the AC for Evaluation and Teaching Methodology. However, as in the analysis of the CC and AVE data, this remained within the appropriate parameters and, if excluded, would not change the final results. Thus, the construct was maintained in the research (Table 2).

In the discriminant validity stage, which indicates how independent the latent variables are from each other (HAIR et al., 2014), the Fornell-Larcker criterion was used, in which the square roots of the AVE values of each construct were compared with Pearson's correlations between the constructs. In this step, some variables were excluded in order to achieve the model adjustment (see Table 3).

Figure 2 AFC initial model



Source: Research Data.

Table 2 Reliability analysis of first-order constructs

Constructs	Items	AC	CC	AVE
Student Learning Interest (SLI)	7	0,8521	0,8878	0,5319
Climate Expression Ideas (CEI)	5	0,7905	0,8573	0,5476
Evaluation Methodology Teaching (EMT)	2	0,3829	0,7468	0,6048
Encouraging New Ideas (ENI)	9	0,8863	0,9083	0,5245

Source: Research Data.

Note: a) The Items column indicates the number of variables for each construct of the final (purified) scales; b) AC indicates the value of the Cronbach's Alpha statistic; c) CC indicates the value of the composite reliability; d) AVE indicates the value of the extracted average variance.

Table 3 Pearson's correlation and the square root of the AVE of the latent variables of the first order constructs

Constructs	Student learning interest (SLI)	Student learning interest (SLI)	Student learning interest (SLI)	Student learning interest (SLI)
I Student learning interest (SLI)	0,7293			
Climate Expression Ideas (CEI)	0,71340	0,7400		
Evaluation Method. Teaching (EMT)	0,604189	0,520987	0,7776	
Encouraging New Ideas (ENI)	0,716082	0,69141	0,477091	0,7242

Source: Research data.

* The values in bold (diagonally) are the square root of the AVE, the other values are the correlations between the variables.

After assessing Pearson's Determination Coefficients (R^2), it was found that only the Teaching Methodology Assessment does not have a value greater than 0.50. In the case of Predictive Relevance (Q^2), all constructs showed medium or large relevance. Finally, for the effect size (f^2), again, only the Teaching Methodology Assessment proved to be considered small, with the other constructs, for effect sizes, being considered significant (Table 4).

Table 4 Evaluation of Pearson's Determination Coefficients (R^2), Predictive Relevance (Q^2) and Effect Size (f^2) of the constructs

	R^2	Q^2	F^2
Student Learning Interest (SLI)	0,8229	0,438564	0,373714
Climate Expression Ideas (CEI)	0,7374	0,408766	0,325898
Evaluation Methodology Teaching (EMT)	0,4224	0,240570	-0,009057
Encouraging New Ideas (ENI)	0,8306	0,455627	0,399023

Source: Research data.

In the Goodness-Of-Fit check (Table 5), it was observed that all constructs were adherent to the model, with a value greater than 0.36 (WETZEL et al., 2009).

Table 5 Evaluation of the structural model using Goodness of Fit

	Items	R^2	AVE
Teaching Practices	Learning Student Interest (LSI)	7	0,8229
	Climate Expression Ideas (CEI)	5	0,7374
	Evaluation Method. Teaching (EMT)	2	0,4224
	Encouraging New Ideas (ENI)	9	0,8306
		Average R^2	Average AVE
		0,7033*	0,5387*
		GoF	0,6156**

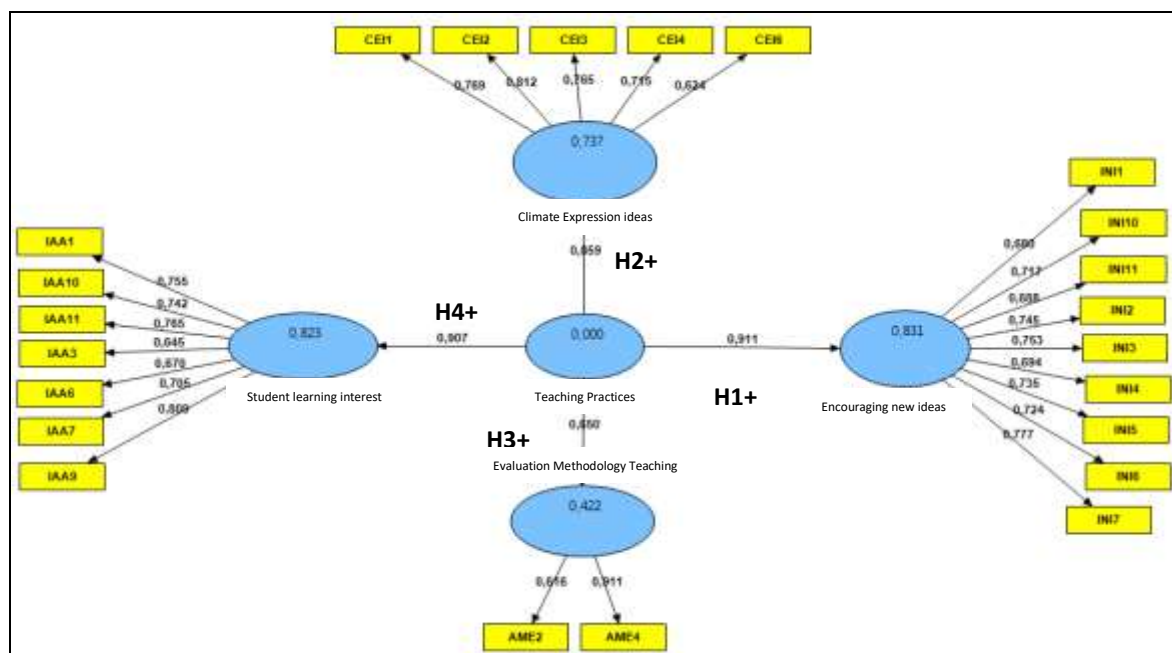
Source: Research data.

* Weight Vectors

** Geometric average (square root of the product of two indicators)

As the last step of estimating the model, the values and significance of the Path Coefficients (Γ) were observed, which indicate how much one construct is related to another. Values range from -1.0 to +1.0, and close to +1.0 indicate a very strong positive relationship between two constructs (and vice versa for values close to -1.0). Close to zero indicate weak relationships (HAIR et al., 2014). According to figure 3, all values are close to 1, that is, the constructs are strongly related; and the path coefficients were significant ($p < 0.01$) for all hypotheses, being: H1 ($\beta = 0.911$, $t = 64.781$), H2 ($\beta = 0.859$, $t = 39.853$), H3 ($\beta = 0.650$, $t = 11.747$) and H4 ($\beta = 0.907$, $t = 69.037$). In Figure 3, the final Structural Model is presented.

Figure 3 Structural Model (PLS)



Source: Research Data.

As shown in figure 3, the values related to the Path Coefficients (Γ) were significant, which represents that the hypotheses proposed for the study are supported, as shown in Table 6.

Table 6 Hypothesis analysis

Hypothesis		Situation
H1	The incentive to new ideas is related to the teaching practices of stimulating student creativity.	Supported
H2	The climate for the expression of ideas is related to the teaching practices to stimulate student creativity.	Supported
H3	The evaluation and teaching methodology are related to the teaching practices to stimulate student creativity.	Supported
H4	The interest in student learning is related to the teaching practices to stimulate student creativity.	Supported

Source: Research data.

After the adjustment steps, the final model was obtained with the permanence of 23 variables from the initial 37 proposed in the model of Alencar and Fleith (2004, 2010), as shown in Table 7.

It is suggested that the variables above represented by the four dimensions are capable of presenting teaching practices capable of stimulating creativity in students. It is observed,

through these practices, routine actions that can be incorporated into the methodologies of the classes and provide good results, leveraging the creativity of the students through different stimuli.

Table 7 Teaching practices capable of fostering creativity in students

Dimension	Practices
Interest in Student Learning (ISL)	Use examples to illustrate what is being discussed in class. Provide diversified bibliography on the topics covered. Present problem situations to be solved by students. Expose the content in a didactic way. Offer important and interesting information regarding the content of the course. Have enthusiasm for the discipline you teach. Have positive expectations regarding student performance.
Climate for Expression of Ideas (CEI)	Valuing students' original ideas. Create an environment of respect and acceptance for students' ideas. Make it possible for students to disagree with your points of view. Listen carefully to students' interventions. Have a sense of humor in the classroom.
Teaching Evaluation and Methodology (TEM)	Do not use forms of assessment that require the student only to reproduce the content given in class or contained in textbooks. Make use of diverse forms of assessment.
Encouraging New Ideas (ENI)	Cultivate in students a taste for discovery and search for new knowledge. Ask challenging questions that motivate students to think and reason. Encourage students to analyze different aspects of a problem. Stimulate students' initiative. Encourage the student to think about new ideas related to the content of the discipline. Promote students' self-confidence. Stimulate students' curiosity through the proposed tasks. Get the student to realize and know divergent points of view on the same problem or topic of study. Encourage students to ask questions related to the topics studied.

Source: Research data.

4.2 ANALYSIS OF QUALITATIVE DATA

The motivation for the qualitative stage was to raise and analyze the opinion of the teachers about the practices employed by them and about their impact on the creativity potentialized in the classes, using the results of the quantitative stage. The technique used in this stage was the semi-structured interview and five teachers from the researched institutions participated. The interviewees are teachers who have worked on average for 10 years in the institutions and classes surveyed for more than two years and have participated in training courses based on techniques of active teaching methodologies.

Regarding the creative behavior of academics in the classroom, it is observed that teachers highlight the importance of participation and exchange of information between students and teachers.

The interest, willingness, availability, interactivity factor are the necessary elements for a class to become productive, enjoyable, and produce results. The teacher-student relationship overlaps with the techniques and technological assistance. There needs to be attunement, involvement, complicity to develop learning and teaching (Interviewee 1 - verbal communication).

I understand creativity as a characteristic or quality of the student is actively seeking or proposing something, not waiting for the facts to happen passively, although, on many occasions, the methodological proposal of the teacher's work is decisive to "awaken" the creativity of the student (Interviewee 2 - verbal communication).

Regarding the practices that encourage creativity among students, it is observed that the literature points out that the teacher that encourages creativity creates a climate for the expression of new ideas, encouraging students to learn autonomously and independently from the teacher. In addition, the teacher motivates students to have many ideas, promotes students' self-assessment, and proposes goals to be achieved with students (NAKANO, 2009). Alencar (2002) points out factors that stimulate creativity in the student as personality traits of the teacher, such as self-confidence, initiative, and independence, in addition to the use of teaching methods and time provided to the student to think and develop new ideas.

When investigating teachers about the methods used during classes to stimulate students' creativity, it is observed in their answers that there is a consensus that strictly expository classes do not stimulate creativity in academics. Methods and techniques capable of stimulating creativity in the student, according to the interviewees, are the development of brainstorming about an idea, situation, or text; analysis of case studies provided by the teacher, in which the students must, in the end, present positioning and proposal of dynamics or game that alters the students' routine.

I understand that demotivation occurs when classes are repetitive and always with the same approach, as in the case of expository classes (always). Not that they cannot happen, but it cannot be a routine, so that the student already foresees what will happen, and that it will always be the same. Thus, all other possibilities are possible. I think the important thing is to surprise the student, with each class presenting a new way of getting to know (text, case study, groups, among other methods). It will not always be pleasing to everyone and this is not the goal, as it is not a pleasure but a tool for learning. The important thing is to escape the routine and sameness of the classes. (Interviewee 3 - verbal communication).

I understand that the methods that most stimulate creativity are based on active methodologies, proposing an interaction between the teacher and the student. Expository classes, although fundamental for the presentation of certain contents, do not stimulate creativity despite a likely effort by the teacher to make this happen. (Interviewee 4 - verbal communication).

According to Alencar and Fleith (2004), about pedagogical practices, it is observed that the typical behavior of the teacher that encourages creativity tends to value discussions and debates, encourages questioning and reflection, mobilizes the interest in the student's learning, and reinforces personality traits, such as openness to criticisms and divergent ideas, punctuality and assiduity, sense of humor and flexibility. Almeida and Alencar (2010) also affirm that it is necessary to value the incentive to new ideas through innovations carried out by teachers, to develop students' interest.

As for the evolution of the students' creative behavior (new ideas, willingness to participate in different methods or dynamics, exposure of thinking, use of imagination, etc.), the professors point out that it is observed that they are more willing to present new ideas related to the content explored during classes and getting involved with new methods or new work proposals. However, it is observed that the cultural factor is still an influencer or inhibitor in the development of the students' creative behavior, as exposed by the teachers.

As students are involved in the class, they tend to participate positively. Their previous experiences and cultural level are sometimes the obstacles to progress in debates and discussions. They read little and arrive impregnated with common sense and prejudice. But it is very gratifying to see them advancing and overcoming paradigms, growing and broadening their thinking. (Interviewee 1 - verbal communication).

The level of maturity and preparation of the student when entering higher education is well below the minimum necessary. There is a difficulty for students to be able to express themselves in the classroom. This condition is a notorious consequence of the lack of (in-depth) reading of important literature along the trajectory in elementary and high school. The student, in general, has little reflective capacity on the subjects, although there is an effort by the teacher to make this happen. It has a behavior in which it expects everything ready and "chewed", as it happens in social networks and one or two clicks on research pages. (Interviewee 5 - verbal communication).

Regarding the relationship between teaching practices that encourage creativity, Ribeiro and Fleith (2007) note that in private institutions of higher education there would be an ease of access and diversity of resources that the teacher has the availability to use in his discipline, as well as the quality of the classroom's physical space. Fleith (2011) points out that students from private educational institutions have a more positive perception of the

classroom climate for creativity. In a survey conducted in Brazil, the author found that private educational institutions, in general, offer more conditions for teaching and learning, such as materials, equipment, and opportunities for curriculum enrichment, when compared to public institutions of higher education (FLEITH, 2011).

Thus, it is observed, as exposed by the teachers, that there is a concern for them to provide the academic with an environment of study, learning, and stimulation capable of developing a new look and providing their creative behavior. This finding was also found in the quantitative stage, where academics highlight teaching practices used by teachers that influence creative behavior.

5 DISCUSSION AND FINAL CONSIDERATIONS

The focus of the teacher in his teaching activities is fundamental in the process of instrumentalization of the student for the development of his potential and the necessary competencies for his personal and professional fulfillment. In this context, however, higher education has been criticized for not encouraging creative and independent thinking (ALENCAR, 2002, 2010).

This article identified and analyzed the practices used by teachers in three private HEIs, to verify whether they are capable of promoting the development of the student's creativity. It was verified, from the analysis of the quantitative data, that the academics perceive that the teachers use teaching practices capable of stimulating the student to develop new ideas, to create an atmosphere open to the expression of the ideas. These teaching practices are complemented by the use of assessment techniques that mobilize the student to reframe the content learned in the classroom from their perspective and by teaching methodologies that value student learning. Thus, it appears that all the hypotheses proposed in this study were supported.

Concerning factors related to creativity in the teaching environment, it was observed in the Climate for Expression of Ideas factor that teachers value students' original ideas, propose an environment of respect and acceptance of ideas, allowing students to disagree from their point of view, they listen carefully to students' interventions and have a sense of humor in the classroom. These teacher's attitudes, according to Nakano (2009), represent an encouraging teacher who inspires students to learn autonomously and independently.

As for the factor Incentive to New Ideas, it is observed that teachers seek to stimulate in students the taste for discovery and the search for new knowledge. According to the quantitative and qualitative data of the research, teachers propose challenging questions that motivate students to think and reason, encourage them to propose questions related to the themes treated in the classroom, and stimulate curiosity through special tasks. Such results are in agreement with Alencar and Fleith (2004), who observed that the typical behavior of the teacher who encourages creativity refers to the use of discussions and debates with the incentive to question, reflect.

Finally, the analysis of the results around the Assessment Methodology and Teaching Methodology reveals that teachers do not use forms of assessment that require the student only to reproduce the content given in class and make use of different forms of assessment (ALENCAR; FLEITH, 2004). It is observed that expository classes are still part of the teaching system employed by the teachers, but are combined with activities that encourage the student to participate actively during the classes.

The results of this study show that teachers have positive expectations regarding student performance and are enthusiastic about the discipline they teach. These conclusions are in line with the results of Alencar and Fleith (2004, 2010), Ribeiro and Fleith (2007), and Alencar (2006), in which students have positively evaluated their teachers. This set of relatively converging results may reveal a tendency for an important change in perceptions about the roles and behavior traditionally attributed to teachers. The result would be greater space for learning among students, a consequence of the use of teaching practices that stimulate the development of the student's creativity. The results of this study show that teachers have positive expectations regarding student performance and are enthusiastic about the discipline they teach. These conclusions are in line with the results of Alencar and Fleith (2004, 2010), Ribeiro and Fleith (2007), and Alencar (2006), in which students have positively evaluated their teachers. This set of relatively converging results may reveal a tendency for an important change in perceptions about the roles and behavior traditionally attributed to teachers. The result would be greater space for learning among students, a consequence of the use of teaching practices that stimulate the development of the student's creativity.

However, still following the paths of the present analysis, it is understood that the positive results found are, first of all, the result of an attitudinal change among teachers, in

which genuine interest is evidenced and not a consequence of the application of New Teaching Methodologies. Certainly, these results are the effects of institutional efforts aimed at guidance and teacher training, an idea that is in line with the position of Wechsler (2002), Alencar (2008), and Coto, Neto, and Pacheco (2009). Still, according to Souza, Inocente, and Araújo (2016), in addition to offering work tools, it is important to offer to prepare teachers for the proper use of these tools and motivate them for pedagogical innovation.

In this study, pedagogical practices capable of encouraging creativity in students were identified and we contributed to the debate about pedagogical practices associated with the encouragement and development of creativity in higher education. In addition, this research advances in adapting a structural model to evaluate these practices in the investigated environment.

About the limitations of this study, it cannot be disregarded that the research was carried out in institutions with specific, private characteristics, located in regions located outside metropolitan spaces, whose results are not generalizable, except with some adaptation effort. Still, in the space dedicated to limitations, it should be noted that the number of respondents in the quantitative part was less than that which gave consistency to the original instrument of Alencar and Fleith (2010). This did not hinder the identification of the results, but it may have had an impact in reducing its scope. In this sense, the qualitative research was carried out to verify with the teachers the practices used in the classroom and the relationship with the results achieved in the quantitative stage.

As suggestions for future research, the need to conduct new tests with the original scale is pointed out to provide a more accurate analysis of teaching practices, if possible, accompanied by qualitative research, to increase the quality of the results. It is also suggested to restructure the variables of the Teaching Evaluation and Methodology construct with questions capable of identifying new teaching practices in this area. New research could address both the private and public higher education environment in several regions of the country since the environment is an important attribute in terms of influencing creativity.

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