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The Barriers of Creativity for Higher Education Graduates Distance Learning and Classroom

As Barreiras da Criatividade dos Egressos do Ensino Superior EAD e Presencial

Joseli Konig Ramos[1]
Jeane Caroline Boeira[1]
Maria José Carvalho de Souza Domingues[1]
Adriana Kroenke[1]

[1]Universidade Regional de Blumenau – Furb

Rua Jacob Dreher, 64. Mato Preto- São Bento do Sul - SC – Brasil

*jkramos@furb.br

Abstract

Creativity is present in our daily lives. It excels in personal environments as well as in school and professional settings. This article aims to verify if there are barriers in the creativity of the graduates of higher education in the modalities of distance education and face-to-face modality, pluricurricular. For this, a 7-point Likert scale questionnaire was applied to 283 graduates from higher education. The theoretical basis on creativity and the individual, their barriers listed in four constructs, inhibition / shyness; lack of time / opportunity; social repression; and lack of motivation. The data were analyzed through correlation, obtaining a result of the data analysis, the indication that both teachings correlate positively as the barriers to the development of creativity for classroom teaching and distance learning. It should be considered that distance learning still shows superior results, and it is possible to find additional foundations and more explanations that are detailed on the subject.

Palavras-chave: Creativity. University education. E-learning. On-campus teaching.

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As Barreiras da Criatividade dos Egressos do Ensino Superior EAD e Presencial

Resumo

A criatividade está presente em nosso dia a dia. Ela se destaca tanto nos ambientes pessoais, assim como nos escolares e profissionais. Com este artigo, tem-se o objetivo de verificar se há barreiras na criatividade dos egressos do ensino superior nas modalidades de ensino EAD (Ensino a distância) e presencial, pluricurriculares. Para isso, foi aplicado um questionário por escala likert de 7 pontos para 283 egressos do ensino superior. Realizou-se o embasamento teórico sobre criatividade e o indivíduo, suas barreiras elencadas em quatro construtos, inibição/timidez; falta de tempo/oportunidade; repressão Social; falta de motivação. Os dados foram analisados através de correlação, obtendo, como resultado das análises dos dados, a indicação de que ambos os ensinos se correlacionam de forma positiva quanto às barreiras do desenvolvimento da criatividade para o Ensino Presencial e Ensino EAD. Há de se considerar que o Ensino EAD ainda se mostra com resultados superiores, sendo possível encontrar fundamentos adicionais e explicações mais detalhadas sobre o tema.

***Palavras-chave**: Criatividade. Ensino superior. Ensino a distância. Ensino presencial.*

1. Introduction

Creativity is present in the various segments of human life; what is expected is the stimulus to the so-called creative universities, in which creativity manifests itself in teaching, learning, research, generated knowledge, the environment, forming a culture that results, ultimately, in the cognitive capacity of students in be innovative (BARBIERI, 2018). It can be seen that the research carried out with students and university professors is small, despite the relevance of this stage of schooling in order to provide conditions for the awareness and development of creative skills during professional training, with a view to preparing the student for make use of your creativity (AMARAL; MARTINEZ, 2006).

Thus, creative and habitual actions represent competing behavioral options that can be influenced simultaneously by multiple domains of social action (FORD, 1996). Gardner (2016) also emphasizes the differences between art forms and sees creativity with different characteristics in each specific art, science and profession. An individual working in different contexts is likely to be exposed to different and unusual ideas; thus, if an individual has contact with a diverse group of people, the likelihood of him having knowledge or obtaining knowledge of different approaches to a given problem is increased (PERRY-SMITH; SHALLEY, 2003). In a study, Morais and Almeida (2016) found that more than 80% of higher education students considered creativity as "important" or "very important" for good academic performance and for future professional work, as well as promotional courses for creative skills at the university, both for students and teachers.

In this sense, the aim of the article is to analyze whether there is a relationship between creativity in higher education graduates, differentiating between distance and face-to-face teaching modalities and their barriers, in pluricurricular courses. For this, the scale of Alencar (1999) was used, which he named his scale as Inventory for Identifying Barriers to Personal Creativity, in which he analyzed personal creativity under the aspects of inhibition / shyness factors, lack of time / opportunity, repression lack of motivation. The

correlation of constructs was used to measure the barriers of higher education in relation to creativity, comparing distance and face-to-face modalities.

After conducting the research and generating the data, it was found, in Pearson's correlation, that there was a positive association between the factors: inhibition, opportunity, repression and motivation in distance education and in classroom teaching. As a contribution, this article presents the results of correlation of graduates of higher education in relation to the creativity of distance and distance courses, for the entire academic community and all individuals.

1.1 Theoretical Foundation

Since creativity has been considered a critical element for the survival of many corporations, its importance has been increasingly recognized by academics and professionals in different areas (DAVIS, 2004; ROBINSON, 2013). In view of so many publications on creativity, terms and definitions, it is necessary to delimit what is meant by creativity, its limits, boundaries and conceptualizations. In this sense, we have compiled the different definitions of creativity (Figure 1).

Figure 1: Creativity Definitions

AMABILE et al. (1996); SHALLEY, ZHOU e OLDHAM (2004)	Creativity is generally conceptualized as the production of new and useful ideas.
O'REILLY e TUSHMAN (2004); SHALLEY (2008)	Sometimes, ideas are rejected prematurely because the idea was brilliant in concept, but failed to apply. However, more often, ideas remain unimplemented because individuals and organizations focus their energy on generating ideas (eg, brainstorming events, idea boxes etc.), but do not invest attention, efforts and resources in promoting and creative implementation, ideas that originate from these initiatives.
BARON (1963)	The creative person is both naive and experienced, destructive and constructive, occasionally crazier, but inflexibly healthier. "More positively:" Without knowledge, without creation; without stability, without flexibility; without discipline, without freedom. "
TORRANCE (1988)	He described creativity as a process that involved seeing problems, formulating hypotheses about solutions, evaluating hypotheses, revising them, if necessary, and communicating them to others, not only seeming to suggest a sequence of steps, but also to focus directly on the processes involved in each stage and conceptualize them in a more psychological way.

Source: Definitions compiled from bibliographic research.

1.2. Creativity and individual

There are many factors that affect the expression of creativity. Some of these factors concern the individual; others, the work environment; still others, to the historical and cultural dimension of society (ALENCAR; MARTINEZ, 1998).

Alencar (1997) understands that "if the individual perceives and evaluates himself as competent, capable and creative, he tends to have more confidence in expressing ideas and in exhibiting creative behavior. On the other hand, if the individual perceives himself as incapable and not creative, this perception will reflect on his actions, limiting the possibilities of a fuller expression of his potential and talent" (ALENCAR, 1997; SHALLEY, ZHOU and OLDHAM, 2004). The argument that personal and contextual characteristics interact with each other essentially states that certain contexts "match" with the personal characteristics of individuals and that this correspondence results in high levels of employee creativity (AMABILE, 1996).

Ford (1996) suggested that creative and habitual actions are competing behavioral options for an individual. Individuals can be creative in their jobs, generating new ways of doing their work, devising new procedures or having innovative ideas and reconfiguring known approaches in new alternatives (PERRY-SMITH; SHALLEY, 2003). Two important theoretical works suggested that the creative process involves several steps, including (1) identifying a problem / opportunity; (2) gather information or resources; (3) generating ideas; (4) evaluate, modify and communicate ideas (STEIN, 1967; AMABILE, 1996).

Research also highlights the capacity for convergent thinking as a critical determinant of individual creativity (CROPLEY & CROPLEY, 2012; CROPLEY, 2006; RUNCO, 2004). Runco (2004) also argued that creativity requires a combination of divergent and convergent thinking. He further argued that convergent thinking involves "critical processes" - and critical process means not only that processes are necessary for creativity, but also that they involve criticism of the results of divergent thinking (RUNCO, 2004). Likewise, it can be said that creativity is based on intrinsic motivation (AMABILE, 1996): "The desire to carry out an activity in favor of the activity itself, regardless of the external reward". Thus, contextual characteristics have consistent and significant effects on the creativity of individuals and the direction of these effects is aligned with the perspective of intrinsic motivation (SHALLEY, ZHOU and OLDHAM, 2004). For Talbot (1993), for the individual to express his creativity, it is necessary that he has the motive, the means and the opportunity.

1.3. Barriers of Creativity

There are countless barriers that make it difficult for individuals to take advantage of their potential to create. Some of them are eminently personal, and here we could refer to emotional, perceptual and intellectual barriers. Others are of a social nature, being directly linked to values, norms and assumptions cultivated in society and that contribute to keeping the potential to create dormant (ALENCAR, 1999). Self-image barriers reduce an individual's effectiveness in advancing ideas assertively. Arising from a lack of self-confidence, the barrier contributes to a lack of confidence in the value of the ideas themselves. The individual may be reluctant to seek help and reveal personal feelings (RICKARDS, 1991). For Perry and Smith (2003), once a high level of creativity has been achieved, the peripheral individual will find himself becoming relatively more central in position, becoming more exposed to people and information, stimulating new ideas and additional creative insights.

The analyzed barriers refer to inhibition and shyness, where shyness is understood "[...] the awareness of incapacity, the fear of failure in front of others, the fear of the judgment of others, the concern that they will make mistakes or that , getting it right, it will not be understood "(MOTTA FILHO, 1969). These are the factors that affect the person considered shy; worrying about what "others" might find or say can end up affecting your will to create.

Another factor that stands out as a barrier is the lack of time or opportunity. Prigogine (2009), in his article on Nature's Creativity, Human Creativity, states that "Man is neither the father of time nor of evolution", and that, today, creativity is linked to irreversibility, to breaking symmetry time, through which the future and the past play different roles and that for a long time, creativity was understood only as dissipation, but today it is part of the origin of life's creativity. And life is only possible when it looks to the future, and the future is innovation (PRIGOGINE, 2009).

We also consider the factor of social repression, which shows the appreciation of obedient, conformist and sociable students, to the detriment of those who are questioning, independent and intuitive, in order to point out that behaviors that characterize the creative individual are not valued in the classroom, being, in most cases, unwanted or punished (WECHSLER, 1998).

And, as a last factor, the lack of motivation, in which the contribution arising from the knowledge of the creative process derives from the fact that such process is associated with a feeling of fullness and pleasure, either in the activity of producing ideas, or in its placement into practice (VERGARA, 1998). Alencar

and Fleith (1993) note that the moment of inspiration, when the solution to the problem arises, is usually a moment of intense joy on the part of the creator. The exercise of creative potential - which can occur in any domain of activity - is, therefore, an intrinsically motivating experience (VERGARA, 1998).

1.4. Creativity in University Education

It is important to consider the educational institution as one of the fundamental spaces for the development of students' creativity (AMARAL; MARTINEZ, 2006). Alencar and Fleith (2003), also emphasize that creative skills are of crucial importance in the process of preparing students to deal with a complex and challenging world. Castanho (2000) tells us that schools need to change. The present times demand a broad and creative culture, which permeates all action in society, with capillarity by all institutions.

Furthermore, Alencar and Fleith (2003) emphasize that, at school, it is common to give relevance to the student's ignorance and incompetence; on the other hand, their potentialities regarding talent and individual skills are not emphasized, thus creating barriers to the development of creativity. By becoming a subject of his own learning, the creative student does not limit himself to reproducing, but proposes to create, from his learning processes, something new and valuable for his development process (AMARAL; MARTINEZ, 2006). If we want them to be creative, they need to experiment with countless new possibilities to show their initiative (MORAN, 2015). It can also be said that the university professor is more attentive to the development of the capacity of the future professional, to think in a creative and innovative way, something indispensable for the job market; and this, undoubtedly, is demanding new teaching practices, constituting the challenge for educators to start to act as catalysts of the creative potential of each student (ALENCAR, 1997).

In a study on personal creativity among teachers, the results point out different barriers that refer directly or indirectly to the reasons, means and opportunities for the expression of personal creativity, signaling the need for strategies that expand the possibilities of creative expression in teachers (ALENCAR; SOUZA FLEITH, 2003). Alencar (1997) also puts it as a result - and draws attention to the fact - that, in general, university students consider that there is little incentive for different aspects of creativity on the part of their teachers (ALENCAR, 1997). Accordingly, it was observed that lack of time and opportunity were the factor most often pointed out by teachers as a barrier to the expression of their creativity. (ALENCAR; SOUZA FLEITH, 2003).

In higher education institutions, Castanho (2000, p. 77) states that "our faculties are, in general, little or not creative. Developing creativity seems to be such a simple goal, but it is one of the rarest characteristics to be found in most of our young people, educated to the conformist and homogeneous attitude that school systems condemn them to". But, on the other hand, we find in educational institutions a reasonable number of teachers who are experimenting with these new methodologies, using attractive applications and sharing what they learn online. What predominates, however, is certain accommodation, repeating formulas with more attractive packaging, awaiting recipes, in a world that requires creativity and the ability to face complex challenges (MORAN, 2015).

1.5. Creativity in Face-to-face and distance education

For Moreira (2010), teachers need to transform learning into an interesting and attractive activity, exploring the student's individual experiences and their creative and imaginative potential. The educational institution also needs to find its educational identity, in which an innovative project can facilitate organizational and personal changes, stimulating creativity and enabling transformations (MORAN, 2010). The teacher's attitudes and performance, in and outside the classroom, are seen as essential for higher education to fulfill the mission of preparing students for creativity (MORAIS, ALMEIDA, 2016).

In classroom teaching, Moran (2000) states that, with the use of technology, classrooms become more functional; students use notebooks for research, searching for new materials and solving problems; the teacher is also more connected, using support materials to motivate students and illustrate their ideas. At EAD, the challenge is to make courses more innovative, in which students are able to connect theory to practice, and teachers prepare diverse classes to make them more attractive (MORAN, 2015). Today, the university also lives a paradox between the need to train students for creativity and continuity with routines and values that have long been ingrained (MORAIS, ALMEIDA, 2016).

In this sense, Moran (2015) defends the use of methodologies according to the objectives set. The formation of the critical student, participative in the learning and creative process, is achieved through active, not inert, methodologies. For him, one of the most interesting models of teaching today is to focus on the virtual environment what is basic information and leave the most creative and supervised activities to the classroom. It is what is called an inverted class (MORAN, 2015). This methodology can be fully integrated, with online courses in the classroom and in EAD, with interesting and common materials for both. In all subjects or modules, teachers can be more guiding, using creative forms from the inverted classroom (MORAN, 2015).

In DL, there is the role of the educational designer, who is primarily responsible for creating the teaching and learning strategies for the online modality, requiring creativity to carry out each planning (NEVES et al., 2016). He also found in his study that, among the characteristics inherent to this professional, is creativity, with which the educational designer handles and plans the didactic actions according to the available media resources (NEVES, 2016). It can be said that the teacher increasingly becomes a manager and advisor of collective and individual, predictable and unpredictable paths, in a more open, creative and entrepreneurial construction (MORAN, 2015).

2. Methodology

The presentation of the results and theoretical basis of descriptive research shows characteristics, properties, relationships existing in the community, working with data or facts verified from the reality itself (CERVO, 2002). The approach is characterized as quantitative, as it is one of the ways in which objective theories can be tested, in order to verify the relationship between the variables. Thus, the variables can be measured by means of instruments, allowing the data to be tested statistically (CRESWELL, 2003).

To collect data, we use measurement through the use of scale - scale being a measurement instrument that can be distinct or continuous. Metric scales, such as summed classification (LIKERT), attempt to measure attitudes or opinions, traditionally, using 5 to 7 points to assess the intensity with which someone agrees or disagrees with a set of statements (HAIR, 2005).

In this article, a research was carried out based on the scale developed by Alencar (1999), called Inventory for Identifying Barriers to Personal Creativity, where we tested, in this process, 66 variables, taken from the inventory, which were correlated and grouped into 4 main constructs : inhibition, opportunity, repression and motivation, renamed by the authors, confirming the factors grouped in the scale of Alencar (1999). Thus, we analyzed the creativity of graduates from higher education under the aspects of the factors of inhibition / shyness, lack of time / opportunity, social repression and lack of motivation, using a 7-point Likert scale, ranging from 1 = totally disagree to 7 = I totally agree, for students of all courses, to check if there is a relationship or distinction with the creativity barriers of higher education courses or in person. The survey was sent through social networks, requesting the participation of professionals who have completed higher education, both in person and in distance learning, using the “snowball” method, passing it on to some people and requesting sharing with others, to reach a greater number of respondents (DEWES, 2013).

In this sense, the respondents of the 7-point Likert scale questionnaire were asked to sincerely complete the following inductive sentence: I would be more creative if ..., allowing to develop the respondent's creative expression.

3. Results and Discussion

The analysis of the results found is presented, in which we obtained a total of 283 respondents graduating from higher education, 59.36% of whom were female and 40.63 were male. Respondents are between the ages of 18 and 24 (0.02%); between 25 and 35 years old (29.32%); 36 and 50 years old (50%): from 51 years old, 12.6%. Of the total respondents, 91.51% are working; the rest are unemployed. Still, of the total, 85.86% studied in private higher education institutions and 14.14% in public institutions. Still, of the total respondents, 84.8% studied in the face-to-face teaching modality and 15.2% in the distance learning modality.

This percentage of distance learning is also justified, because no period of time has been put in the training of graduates of higher education, and distance learning has been increasing in relation to face-to-face education since 2007. Distance learning represented 7% of undergraduate enrollments. Over the past 10 years, distance education has increased its participation in higher education. In 2017, EAD increased by 17.6% and already serves more than 1.7 million students, representing 21.2% of undergraduate students in the country. The face-to-face modality presents the 2nd year of drop in the number of enrollments (INEP, 2018).

In the first moment, all students were correlated, being students in the face-to-face or distance learning modalities. Thus, the correlations between the factors are presented, as shown in Table 1.

Table 1: Correlations between scale factors

		Inhibition/ Shyness	Lack of time/ Opportunity	Social Repression	Lack of motivation
Inhibition/ Shyness	Correlation of Pearson	1			
	Sig. (2 extremities)				
	Number of students	283			
Lack of time/ Opportunity	Correlation of Pearson	,632**	1		
	Sig. (2 extremities)	,000			
	Number of students	283	283		
Social Repression	Correlation of Pearson	,737**	,756**	1	
	Sig. (2 extremities)	,000	,000		
	Number of students	283	283	283	
Lack of motivation	Correlation of Pearson	,798**	,649**	,637**	1
	Sig. (2 extremities)	,000	,000	,000	
	Number of students	283	283	283	283

** The correlation is significant at the level of 0.5% (2 ends).

Source: Research data.

In this first analysis, there was a significant and positive relationship of all correlations. Pearson's correlation coefficient (r) is a measure of linear association between variables. For Pearson's correlation, an absolute value of 1 indicates a perfect linear relationship; and the closer to 1, the greater its relationship

(FIGUEIREDO FILHO; SILVA JUNIOR, 2009). In order to analyze the modalities of distance and distance learning, a correlation was generated with the variables of the constructs for each of them. Table 2 presents the results of the correlations of the Alencar Scale factors, separating the modalities of Distance Learning and Face-to-face Teaching.

Table 2: Correlations of the Alencar Scale Factors EAD and Presential

EAD		Inhibition/ Shyness	Lack of time/ Opportunity	Social Repression	Lack of motivation
Inhibition/ Shyness	Correlation of Pearson	1			
	Sig. (2 extremities)				
	Number of students	43			
Lack of time/ Opportunity	Correlation of Pearson	,769**	1		
	Sig. (2 extremities)	,000			
	Number of students	43	43		
Social Repression	Correlation of Pearson	,834**	,772**	1	
	Sig. (2 extremities)	,000	,000		
	Number of students	43	43	43	
Lack of motivation	Correlation of Pearson	,849**	,748**	,720**	1
	Sig. (2 extremities)	,000	,000	,000	
	Number of students	43	43	43	43
PRESENTIAL		Inhibition/ Shyness	Lack of time/ Opportunity	Social Repression	Lack of motivation
Inhibition/ Shyness	Correlation of Pearson	1			
	Sig. (2 extremities)				
	Number of students	240			
Lack of time/ Opportunity	Correlation of Pearson	,606**	1		
	Sig. (2 extremities)	,000			
	Number of students	240	240		
Social Repression	Correlation of Pearson	,718**	,754**	1	
	Sig. (2 extremities)	,000	,000		
	Number of students	240	240	240	
Lack of motivation	Correlation of Pearson	,788**	,624**	,620**	1
	Sig. (2 extremities)	,000	,000	,000	
	Number of students	240	240	240	240

** The correlation is significant at the 0.01 level (2 ends).

* The correlation is significant at the 0.05 level (2 ends).

Thus, it was found that in Pearson's correlation there was a positive association between the factors inhibition, opportunity, repression and motivation in distance education and classroom teaching.

This result follows the results of previous studies, in which Alencar and Fleith (2004) show the importance of these variables under the influence and the development of creative potential in the classroom, where there is a shortage of creative professionals who master strategies to develop the creativity in an

individual in the educational environment. Teachers and students have misconceptions about creativity; thus, a broad discussion on creativity in education is necessary (CRAFT, 2007). Therefore, regardless of distance or face-to-face teaching, it is extremely important for teachers to constantly reflect on their pedagogical practices and to invest in training geared towards creativity, for the construction of young critical and creative professionals.

Table 3 shows the results of the correlations of the Alencar Scale factors related to distance education and face-to-face education correlated with the analysis of control variables, namely: age and income.

Table 3: Correlations of the Alencar Scale Factors and Control Variables

EAD		Inhibition/ Shyness	Lack of time/ Opportunity	Social Repression	Lack of motivation	Age	Income
Inhibition/ Shyness	Correlation of Pearson	1					
	Sig. (2 extremities)						
	Number of students	43					
Lack of time/ Opportunity	Correlation of Pearson	,769**	1				
	Sig. (2 extremities)	,000					
	Number of students	43	43				
Social Repression	Correlation of Pearson	,834**	,772**	1			
	Sig. (2 extremities)	,000	,000				
	Number of students	43	43	43			
Lack of motivation	Correlation of Pearson	,849**	,748**	,720**	1		
	Sig. (2 extremities)	,000	,000	,000			
	Number of students	43	43	43	43		
Age	Correlation of Pearson	-0,206	0,055	-0,097	-0,152	1	
	Sig. (2 extremities)	0,186	0,724	0,537	0,331		
	Number of students	43	43	43	43	43	
Income	Correlation of Pearson	0,024	-0,135	-0,047	-0,049	0,048	1
	Sig. (2 extremities)	0,876	0,387	0,765	0,756	0,76	
	N	43	43	43	43	43	43
PRESENTIAL		Inhibition/ Shyness	Lack of time/ Opportunity	Social Repression	Lack of motivation	Age	Income
Inhibition/ Shyness	Correlation of Pearson	1					
	Sig. (2 extremities)	,000					
	Number of students	240					
Lack of time/ Opportunity	Correlation of Pearson	,606**	1				
	Sig. (2 extremities)	,000	,000				
	Number of students	240	240				

Social Repression	Correlation of Pearson	,718**	,754**	1			
	Sig. (2 extremities)	,000	,000				
	Number of students	240	240	240			
Lack of motivation	Correlation of Pearson	,788**	,624**	,620**	1		
	Sig. (2 extremities)	,000	,000	,000			
	Number of students	240	240	240	240		
Age	Correlation of Pearson	-,145*	-0,064	-0,097	-,157*	1	
	Sig. (2 extremities)	0,025	0,327	0,133	0,015		
	Number of students	240	240	240	240	240	
Income	Correlation of Pearson	-,214**	-0,039	-0,12	-0,121	,323**	1
	Sig. (2 extremities)	0,001	0,551	0,063	0,062	,000	
	Number of students	240	240	240	240	240	240

** The correlation is significant at the 0.01 level (2 ends).
* The correlation is significant at the 0.05 level (2 ends).

Analyzing the factors for distance education, it was observed that age and income are not significant for creativity. This means that income can be expected to have a constant evolution throughout a worker's life cycle, followed by experience / age, increased productivity, among other factors. However, the income from work can be higher for those with higher education, and all these variables influence the worker's income. (COSTANZI, 2015).

Already correlating the control variables for classroom teaching, it was observed that age is negatively correlated with motivation. According to Sternberg and Lubart (1999, p. 339), "when examining a product, process or creative person, it is not possible to ignore the influence of the environment". This quote follows the results of previous studies by Land and Jarman (1990), in which they carried out a longitudinal study in which children were tested and followed up to their fifteen years of age, resulting in a decreasing index of creativity in relation to the subjects' age , proving that the influence of the environment directly impacts the individual's creativity. Also, with the age factor, it can be analyzed that age is negatively correlated with inhibition, that is, the older the individual, the lower the inhibition - a fact that brings up the ancient Chinese, an example of the author of the book Tao Te King , The Old Sage, Lao Tzé: Where old age represents the accumulation of experience and life learning (PAULA, 2016). According to Schopenhauer (2006, p. 01), wisdom is knowing how to live life in a pleasant and happy way. Still in the context of the inhibition factor, it is observed that the income factor is negatively correlated with the inhibition; thus, the higher the income, the lower the inhibition of the individual.

Comparing the correlations between distance education and face-to-face education, although the results between studies are difficult, since they are based on different profiles of graduates, often subjective, so it can be said that although both teachings correlate positively as for the barriers of creativity (inhibition / shyness, opportunity, social repression, lack of motivation), EAD Education still shows results superior to those of Presential Education. The purpose of Distance Learning is crucial for the social development of Brazil, but the challenge is still in changing mentality in favor of effective Distance Learning. (COSTANZI, et al., 2015).

4. Conclusion

In view of the results presented, it was found that the barriers of creativity have a positive significance for both modalities, being a predominant factor for breaking a paradox present in organizations, due to the constant search for qualified labor, which brings creative ideas and innovate the professional field.

In agreement that the university also needs to be concerned with creating an environment conducive to creativity and innovation, at the risk of training professionals with refined techniques, but with difficulties in meeting the demands of the new society (BARBIERI, 2000), concluding that the teachings are correlated as to the barriers of creativity, thus demonstrating that the distance learning education presents results superior to those of the On-site Teaching, showing that it is being a rising modality, and standing out as a teaching modality.

In this way, it is notable that the processes carried out in groups in distance learning institutions are directly linked to trust and socialization among individuals (TAGGAR, 2002). These factors directly affect creativity, as well as communication, engagement and conflict management. These teams, with well-developed processes, involve the collaboration of individuals in the group, developing a synthesis of ideas, among other factors that have better results. However, according to Taggar, 2002, when groups lower the focus on processes, creativity can be neutralized.

This article approaches that the classroom teaching and the EAD have differences in some aspects; however, in this same scope, we can develop good professionals for the job market, increasing all the human capacities of the individual in his teaching transition.

The researches found on creativity, usually, refer to classroom teaching; however, involving distance education and creativity is a topic of extreme relevance in the current educational scenario, due to the increasing importance, for good professional performance. For future work, we suggest evaluating (a) other barriers of creativity, which can also be compared to distance learning and face-to-face modalities, in the ways of using creativity felt by students, graduates or professionals; (b) analyze an in-depth study between age and income in the two teaching modalities.

The creativity competence is at the top of the competences of the future, being mentioned as a professional differential in the job market in the coming years. For this reason, it really deserves due attention for its research and development by the students and highly qualified professionals in the job market.

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