Teaching Cases Application in Management Courses: Does Teacher Innovativeness Influence Learning Outcomes?

Aplicação de Casos para Ensino em Cursos de Administração: A Inovatividade do Docente influencia nos Resultados de Aprendizagem?

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ABSTRACT

The application of teaching cases emerges as a promising method, capable of shortening distances between the classroom and organizational reality. However, in the Brazilian context, the use of the case method is still recent and faces barriers that prevent its dissemination. Despite the growth in the number of teaching cases published nationally, there is still a gap between the publication and the current application of case studies in the classroom. Among recommendations to deepen knowledge about the teaching cases application, there is the call to carry out research that articulates the voice of two actors: the teacher and the manager of business schools. In this way, our study investigates the teacher's perspective on applying teaching cases. Our question is: What is the impact of Individual Innovativeness (of the teacher) on Learning Outcomes, considering the context of teaching cases application in business programs? Therefore, we surveyed 100 teachers from Brazil. We used structural equation modeling to analyze data, and the results indicate that the teacher's innovativeness positively influences the students' learning outcomes.

Keywords: Teaching Cases; Innovativeness; Learning Outcomes; Skills; teaching in administration

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RESUMO

A aplicação de casos para ensino desponta como um método promissor, capaz de encurtar distâncias entre a sala de aula e a realidade organizacional. No contexto brasileiro, a utilização do método do caso ainda é recente e enfrenta barreiras que impedem sua disseminação. A despeito do crescimento do número de casos de ensino publicados nacionalmente, ainda existe uma lacuna entre a publicação e a aplicação, de fato, do caso em sala de aula. Entre recomendações para aprofundar o conhecimento sobre a aplicação de casos para ensino, está

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RESUMO

o chamado por realizar pesquisas que articulem a voz de dois atores: o professor e o gestor das Instituições de Ensino Superior. Nesse sentido, o presente estudo investiga a perspectiva do docente sobre a aplicação de casos para ensino, e questiona: Qual a impacto da Inovatividade Individual do professor nos Resultados de Aprendizagem, considerando o contexto de aplicação de casos para ensino em Administração? Para isso, utilizaram-se um levantamento junto a 100 professores de diversas regiões do país. Os dados foram tratados por meio de modelagem de equações estruturais e os resultados indicam que, na perspectiva do professor, a inovatividade individual deste, no contexto de aplicação de casos para ensino, influencia positivamente os resultados de aprendizagem dos alunos.
Palavras-chave: Casos para Ensino; Inovatividade; Resultados de Aprendizagem; Competências; Ensino em Administração

Introduction

Competencies have become central elements in the training of professionals; however, their development in the educational environment requires adaptations in the traditional teaching and learning format. The tendency is that the emphasis comes from teaching forms that perceive students as passive recipients of knowledge and migrate to education that considers the student an active subject in the learning process (CHANDLER; TECKCHANDANI, 2015; MELLER-DA-SILVA; LAPEDRA, 2021). This context applies to the development of the complex range of skills necessary for the Management professional (AYRES; CAVALCANTI, 2019) and makes it desirable to implement innovative methodologies (BEHARA; DAVIS, 2015), enabling active, transferable, cooperative, and autonomous learning (AYRES; CAVALCANTI, 2019).

Gimenez et al. (2019) investigated the alignment between the competencies of the administrator of the 21st century and the skills worked on the teaching and learning innovations of business schools in Brazil. For this, the authors analyzed the winners of the 2018 edition of the ANGRAD Innovation Award, with their initiatives in teaching in administration, considered the most innovative in Brazil this year. Their findings indicated that the initiatives aligned with these competencies used their own methodology and involved teachers and students. In contrast, the less aligned initiatives were characterized by not using practical or real cases.

In this context, the application of cases for teaching emerges as a promising method, capable of shortening distances between the classroom and organizational reality (LOURENÇO; MAGALHÃES, 2013), besides allowing active participation of students in the learning process (IKEDA; OLIVE VELVET; CAMPOMAR, 2005; LAWRENCE; MAGELLAN, 2013; SAVIOR; IKEDA, 2019). In an analogy made by Ikeda and co-authors (2005, p. 151), "cases in administration are like corpses for medical students: the opportunity to practice teachings in real life harmlessly." In this sense, through teaching cases, students can experience real or realistic situations without taking risks related to real decision-making (WANG; WANG, 2011).

In the Brazilian context, the use of the case method is still recent. Therefore, it faces barriers that prevent its dissemination, such as the inexperience of teachers and students with the case studies method, the lack of structure necessary for its application, and the difficulty of adapting foreign cases to the country context (MELLER-DA-SILVA; LAPEDRA, 2021). On this last point, even though it is still scarce, the national publication of teaching cases is increasing. In their bibliometric analysis, the authors identified that the number of teaching cases in Brazil began to grow from 2011 and counted a total of 746 teaching cases published between 2007 and 2018, considering searches on the platform and in the anais of the EnANPAD and EnEPQ Spell events. In their findings, the scientific journals that concentrate most of the publication of cases are GV Casos, RAC (Revista de Administração Contemporânea), RAEP (Revista Administração Ensino e Pesquisa), Revista Alcance, TAC (Technologies of Administration and Accounting), and RPCA (Revista Pensamento Contemporânea em Administração).

Despite the growth in the number of teaching cases published in Brazil, there is still a gap between publication and application in the classroom. Thus, if, on the one hand, the effort to develop cases has been made in recent years, on the other hand, the lack of knowledge about what a teaching case is and how it should be used makes it difficult to use it in a more comprehensive way (LOURENÇO; MAGALHAES, 2013).

Among recommendations to deepen the knowledge about the application of teaching cases is the call for conducting research that articulates the voice of two actors: the teacher and the manager of higher education institutions concerned with this theme (AYRES; CAVALCANTI, 2019). In this sense, the present study investiga-

tes the teacher's perspective on applying teaching cases. Therefore, we ask: What is the impact of individual teacher innovativeness on learning outcomes, considering the application context of teaching cases in administration? In order to answer this question, the objective of this research was to estimate the impact of Individual Innovativiness activity on Learning Outcomes in the context of the teaching cases application. For this, we surveyed 100 teachers from different country regions. We treated by structural equations model, and the results indicate that, from the teacher's perspective, the individual innovativeness of the teacher, in the context of teaching cases application, positively influences the students' learning outcomes.

In addition to the introduction, we organized this article into four other sections. First, in the literature review, we present the origin and definition of the case method for teaching, besides presenting the scales applied in the study, on innovativeness and learning outcomes. Next, we present and describe the methodological steps, considering the description of the sample, the collection instrument, and the techniques used. It then describes its results and discusses its main findings. Finally, we finished with its conclusions and contributions to theory and practice.

Literature Review

The cases in the business management were inserted for the first time in the early twentieth century, in the Harvard Business School, created from the dissatisfaction of the dean with the method of the exhibition class introduced since the beginning of the school, in 1908 (IKEDA; OLIVE VELVET; CAMPOMAR, 2005). Since then, the case method has been used to train management in North American universities and, then, in Europe and Asia (MAHBOUBIAN; 2010). Thus, we should rethink how business schools educate undergraduate students is not new (BEHARA; DAVIS, 2015).

Teaching cases are still little used in Brazil, with a small volume of national issues available, but with an increasing demand for this pedagogical resource. Meller-da-Silva and Lapedra (2021) had mapped the teaching cases produced in Brazil for 12 years in scientific conferences and journals that call for teaching cases. The authors highlight that the number of cases began to grow from 2011. In the

scope investigated, the authors point out that the universities published the most teaching cases in Brazil was UNIVALI (the University of Vale do Itajaí) (57), followed by UFRJ (Federal University of Rio de Janeiro) (16) of UCS (Caxias do Sul University) (11). In total, they identified a list of 15 universities. They suggested a growth trend in adopting teaching cases as a research, teaching, and learning mechanism in the academic environment. The authors also compared the publication of cases in journals in Administration, Accounting, Economics, and Tourism. They found that, among them, the field that most develops teaching cases in the national context is the Administration (188), in the face of Accounting Sciences (111), Tourism (69), and Economics (10). They conclude that management-related courses lead to this growing movement in case production due to the greater applicability in the teaching and learning process (MELLER-DA-SILVA; LAPEDRA, 2021).

Thus, although still underutilized, the teaching cases continue in a trajectory of increasing publication and represent an effective means of teaching in business schools (ANDERSON; SCHIANO, 2014). According to the authors, one of the main ways to understand business problems occurs when recognizing patterns, which requires experience, which, in turn, can be obtained through the discussion of cases. With the use of teaching cases, students learn not only from the teacher but also from each other by bringing their collective experiences to face the problem and developing judgment, which requires reading the theory and applying it.

The case method is repeatedly confused with the case study (ROESCH, 2007). Although they keep relationships with each other, they are different: the case study is a qualitative research technique, in which the researcher investigates an object called the case, while the case method is a teaching technique, which can even be elaborated from a case study (IKEDA; OLIVE VELVET; CAMPOMAR, 2005; SAVIOR; IKEDA, 2019). They also have different objectives and targets: case studies aim to develop scientific research, focusing on academics, while teaching cases aim to promote learning, focusing on students (ROESCH; FERNANDES, 2007).

The case method "exposes students to decision-making processes and the dilemmas that executives live daily" (LOURENÇO; MAGALHÃES, 2013, p. 14) and stands out from traditional teaching methods. Since "instead of students passively receiving facts and theories, they exercise their skills and leadership before a working group that has the task of solving the challenges proposed in the case". A

teaching case considers educational objectives, a real situation commonly involving a decision, a problem, or an opportunity experienced by the main character in an organizational context (ROESCH; FERNANDES, 2007).

The case method helps the decision-making process, allowing greater integration between theory and practice. The educational and learning objective is oriented to the development of specific skills to the extent that it contributes to (i) the application of acquired knowledge; (ii) association between the theoretical and practical world sat in a professional context; and (iii) the development of a systemic thought of an organization as a whole or only part of it (ALBERTON; SILVA, 2018). It is also argued that the application of teaching cases reinforces the perpetuation of experience and knowledge in the student's memory (CHIMENTI, 2021).

However, teaching cases face difficulties, such as inexperience with the method, lack of structure, and difficulty in adapting foreign cases (MELLER-DA-SILVA; LAPEDRA, 2021). Moreover, for some time, an element pointed out has been resistance to change by all involved, especially when teachers do not feel comfortable with the method (GARVIN, 1991), since it demands the adoption of an orientation for learning different from the usual one adopted by the teacher (ALERTON, SILVA, 2018). Thus, a relevant factor in understanding the application of teaching cases includes the profile of greater or lesser resistance to the change of the teacher, or, in other words, its innovativeness.

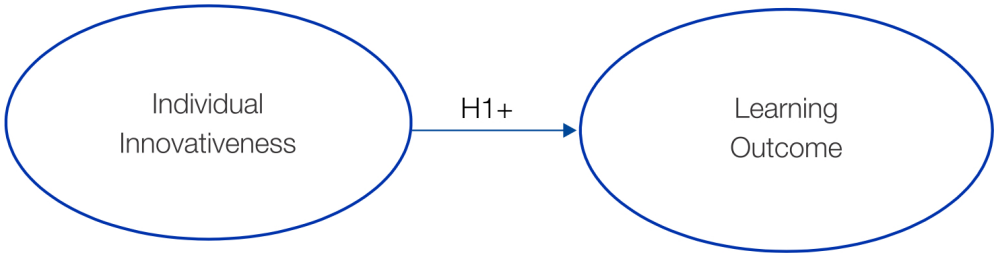
Studies on individual innovativeness permeate several areas of human behavior, such as the relationship between personality pulls and life satisfaction (ALI, 2019); self-efficacy and *readiness for e-learning* (BUBOU; JOB, 2020); online learning based on an integrated model of technology acceptance and planned behavior theory (KIM; Kim; HAN, 2021) and technology and the use of social media in high school (ALDAHDOUH; NOKELAINEN; KORHONEN, 2020).

In this sense, how people respond to their environment can indicate their degree of innovativeness. Hurt, Joseph, and Cook (2013) present a list of 20 situations to analyze how people can respond and define whether they adopt an innovative posture that varies between first users, initial majority, late majority, or, finally, laggards or laggards traditionalists. Some of the situations pointed out by the authors refer to the interest in experimenting with new ideas, the openness to improvisation, the highlight as a reference for colleagues to seek advice or information (HURT; JO-

SEPH; COOK, 2013). The scale developed by the authors is adopted in the present study and described in detail in the methods section. When trying to understand the degree of innovativeness of the teacher, the study tests the following hypothesis, as presented in Figure 1.

> **Hypothesis**: The individual innovativeness of the teacher positively influences the Learning Outcomes in the Application Environment of Teaching Cases.

Figure 1 Hypothesis regarding the influence of Individual Innovativeness on Learning Outcome



Source: Prepared by the authors

To measure the learning outcome in the application environment of teaching cases, we used Zimmerman and Pons ladder (1986) scale. They investigated the learning strategies used by students in contexts inside and outside the classroom. Some of the situations pointed out by them refer to the request for additional information by the student, to the elaboration of unusual or insightful questions, to the posture of expressing and defending opinions different from their colleagues. The scale developed by the authors is adopted in the present study and described in detail in the methods section.

Method

The present study seeks to answer the research question: What is the impact of individual teachers invoking learning outcomes, considering the application of cases for

teaching in administration? For this, a survey was conducted, with a sample composed of 100 non-probabilistic responses, defined by convenience (HAIR et al., 2013).

We performed data collection through electronic questionnaires (Google Forms) between October and November 2021. The instrument applied was composed of questions related to the profile of respondents and their respective educational institutions (training, time of experience in teaching, type of Institution in which they work, administrative category, geographic region, area of specialty), use of teaching cases (whether or not to use them, attendance by semester, number of courses) and qualitative variables on a 5-point Likert scale to measure Individual Innoovability (HURT; JOSEPH; COOK, 2013) (see Chart 1) and Self-Regulated Learning Outcomes (ZIMMERMAN; PONS, 1986) (see Chart 2). The scales were initially translated (from English to Portuguese) and then reverse translation by an expert (COSTA, 2011).

Chart 1 Statements of the Individual Inmovable Construct

Code	Affirmative
In1	My peers often ask me for advice or information
In2	I enjoy trying new ideas
In3	I seek out new ways to do things
In4	I am generally cautious about accepting new ideas (R)
In5	I frequently improvise methods for solving a problem when an answer is not apparent
In6	I am suspicious of new inventions and new ways of thinking (R)
In7	I rarely trust new ideas until I can see whether the vast majority of people around me accept them (R)
In8	I feel that I am an influential member of my peer group
In9	I consider myself to be creative and original in my thinking and behavior
In10	I am aware that I am usually one of the last people in my group to accept something new (R)
In11	I am an inventive kind of person
In12	I enjoy taking part in the leadership responsibilities of the group I belong to.

In13	I am reluctant about adopting new ways of doing things until I see them working for people around me. (R)
In14	I find it stimulating to be original in my thinking and behavior
In15	I tend to feel that the old way of living and doing things is the best way (R)
In16	I am challenged by ambiguities and unsolved problems
In17	I must see other people using innovations before I will consider them (R)
In18	I am receptive to new ideas.
In19	I am challenged by unanswered questions
In20	I often find myself skeptical of new ideas. (R)

Source: Hurt, Joseph, and Cook (2013).

We used the structural equation modeling (SEM) technique to develop the theoretical model. The ESM is timely for the treatment of data since it allows: (i) estimating models in a dependent variable that becomes independent in subsequent dependency relationships and (ii) include latent variables measured indirectly (HAIR et al., 2013). We process the data in the SmartPLS 3.0 software. (RINGLE; WENDE, WENDE, BECKER, 2015). The Partial Least Squares Path Modeling (PLSPM) method is most appropriate in exploratory contexts. Because there are no assumptions about data distribution (normality), and it is less rigid in terms of a sample size than estimation based on the reproduction of the covariance matrix (AMOS, LISREL, EQS, etc.) (HAIR et al.; 2021).

Chart 2 Affirmatives of the Learning Outcomes Construct

Code	Affirmative
Ap1	The student requests additional information on the exact nature of the steps of application of the case for teaching
Ap2	The student requests additional information about the teacher's expectations regarding the attributions of the teaching case
Ap3	The student demonstrates that they know how they did before you report the result

Ap4	The student completes the tasks before or within the specified time frame, i.e. does not exceed the specified time limit
Ap5	The student is prepared to participate in classes with the use of teaching cases
Ap6	The subject of the teaching case arouses the student's express interest
Ap7	The student offers relevant information that has not been mentioned in the teaching case or previous class discussions
Ap8	The student seeks on his own, his help when he is having difficulty understanding the teaching case
Ap9	Students ask unusual or insightful questions in teaching case applications
Ap10	The student volunteers for special tasks, duties, or activities related to the course
Ap11	The student expresses and defends opinions that may differ from the views of their colleagues
Ap12	Compared to the traditional class, the student requests more information about grades or assessments of their school activities

Source: Translated from Zimmerman and Pons (1986)

To determine the sample size to be used when estimating by PLS-PM, Hair et al. (2021) suggest statistical power analysis, which was implemented through the G*Power 3 software (FAUL et al., 2007). For a sample of at least 97 cases, a significance level of 5%, size of the mean effect (R^2 = 30%), the statistical power will be equal to 95%, higher than the recommended minimum value of 80% (HAIR et al., 2021), eliminating the existence of type I and type II errors.

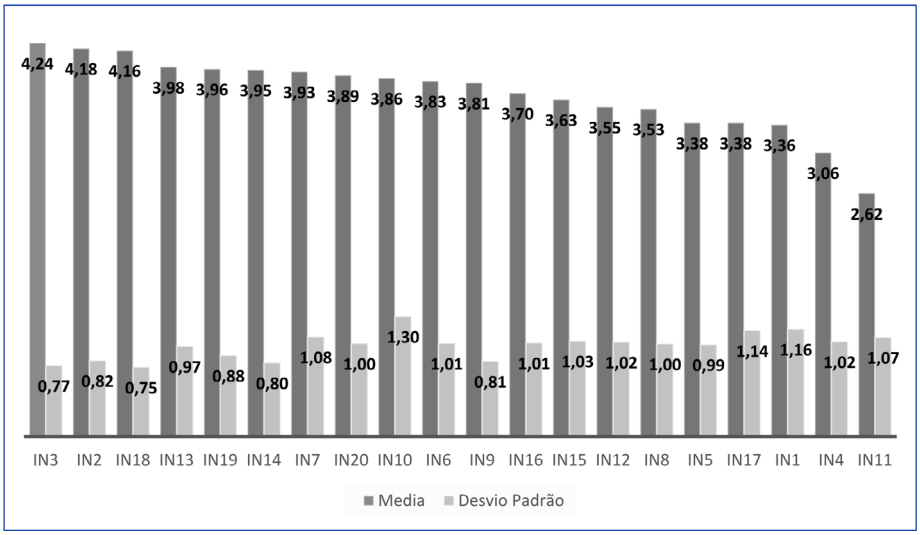
Results

Regarding education, 95% of the respondents are masters (28%) or doctors (67%). Regarding the time of experience, 87% have more than 5 years (52% have more than 15 years in teaching, 20% between 10 and 15 years, and 15% between 5 and 10 years). 64% of the respondents work in the University, 26% in the university

center, 8% in college, and others in the Federal Institute or Technological Education Center. Regarding the Administrative category of the Institution, 43% are private non-profit, 25% federal public, 17% private for-profit, 13% state public, and the other municipal public. Regarding the geographic region, 42% are from the Northeast, 40% from the Southeast, 14% from the southern region, 4% from the North. There were no responses from teachers from the Midwest region.

Regarding the pedagogical context, 36% are from the Strategy area, 30% Entrepreneurship, 26% Marketing, 20% Sustainability, and 19% Innovation. The remaining 25% is distributed among other areas such as Economy, Production and Operations, Human Resources, Services, Technology, etc. We identified that 85% of the respondents use teaching cases. The teachers who answered not to use teaching cases answered only the statements about Individual Innovativeness. On the semester frequency of use of teaching cases, 44% use between 2 and 5 times per semester, 21% only once a semester, and 20% use more than five times per semester. The rest of you don't use teaching cases. Regarding the use of teaching cases in the total disciplines they teach, 42% said they use in all subjects, 28% in more than half, 15% in less than half, and the others do not use teaching cases.

Graph 1 Average and Standard Deviation of the Individual Innovative Construct



Source: survey data (2021)

Regarding Individual Innovativeness (Graph 1), the variables that presented the highest averages were In3, In2, and In18, all related to openness to new ideas. The variables also presented the lowest values for the standard deviation, indicating little variability in the teachers' perception (for more details, see Chart 1 and Graph 1). The descriptive statistics regarding learning outcomes revealed higher means for the variables Ap6, Ap4, and Ap8, which refer, respectively, to the interest shown to fulfill the task within the stipulated time frame and search for help in times of difficulty in the application of the case (for more see Chart 2 and Graph 2)

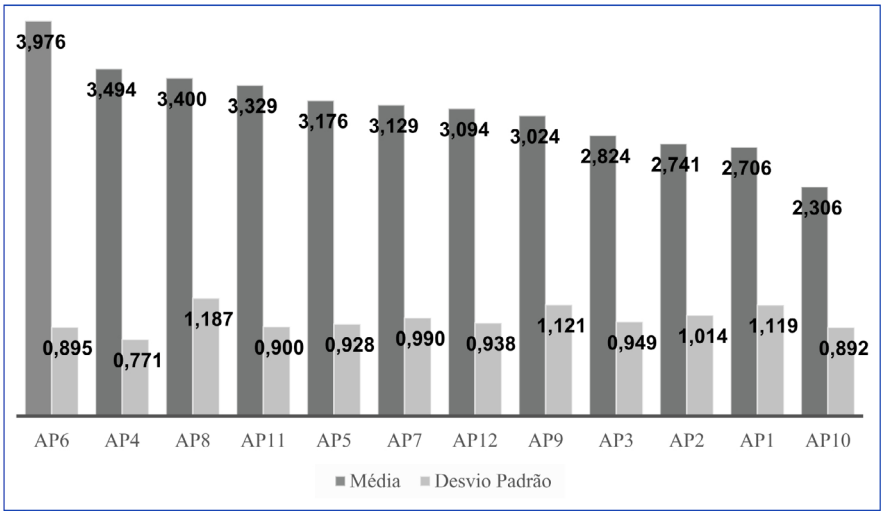
Variables excluded because they are not significant: Ap1 [0.296 (0.200)], Ap4 [0.279 (0.116)], In4 [0.280(0.297)], In6 [0.433 (0.153)], In7 [0.339 (0.209)], In9 [0.378 (0.070)], In10 [0.289 (0.270)], In13 [0.333 (0.249)], In14 [0.438 (0.094)], In15 [0.302 (0.301)], In17 [0.467 (0.085)], In18 [0.403 (0.110)], In19 [0.444 (0.084)] and In20 [0.386 (0.230)].

Thus, we rotated a second model without these variables, but the average variance extracted from the model (AVE) of the constructs continued below 0.50 (the recommended minimum). Thus, we decided to exclude from the model variables that, although significant, were with factor loadings below 0.50. Based on this criterion, the variables In11 [0.404 (0.007)], Ap5 [0.485 (0.001)] and Ap8 [0.492 (0.001)] were excluded.

When rotating the third model, the ave of the constructs continued below 0.50. We then decided to exclude variables with factor loadings below 0.60: In12 [0.554 (0.000)], In5 [0.595 (0.000)], In8[0.588 (0.000)], Ap12 [0.539 (0.000)], Ap2 [0.580 (0.000)] and Ap3 [0.588 (0.000)].

When rotating the fourth model, the Learning Results construct continued with AVE below 0.50. However, the variable Ap10 that in model three was within the parameters [0.626 (0.000)] then presented, in model four [0.584 (0.0000)] values that make the convergent validity of the model impossible. Thus, we also chose to exclude the variable Ap10, giving rise to model five of the analysis presented below.

Graph 2 Mean and Standard Deviation of the Learning Results construct



Source: survey data (2021)

In the final model, the variables In1 [0.659 (0.000)], In16 [0.658, (0.000)] and In2 [0.857 (0.000)] and In3 [0.879 (0.000)] remained in the individual construct. In the Learning Results construct, the variables Ap11 [0.668 (0.000)], Ap6 [0.735 (0.000), Ap7 [0.679 (0.000)] and Ap9 [0.714 (0.000)] remained.

Table 1 shows the values of factor loadings for confirmatory component analysis. These values range from 0.658 to 0.879, suitable for exploratory analysis.

Table 1 Factor loadings

	Individual Innovativeness	Learning Outcomes
In1	**0,659**	0,317
In16	**0,658**	0,189
In2	**0,857**	0,262
In3	0,879	0,277
Ap11	0,229	**0,668**
Ap6	0,255	**0,735**
Ap7	0,197	**0,679**
Ap9	0,287	**0,714**

Note: All factor loadings are significant at 1%.

The reflexive measurement model's evaluation includes the indicator's reliability and the average variance extracted (AVE) to evaluate the convergent validity; The Fornell-Larcker criteria and the factor loadings of the indicators to assess discriminant validity the composite reliability to assess internal consistency. Convergent validity is the extent to which items are theoretically interrelated. For reflexive models, the following indicators for convergent validity are considered: a) factorial load $\lambda > 0.6$ and statistical significance with $\alpha < 0.05$ (CHIN, 1998; FORNELL; LARCKER, 1981). Items with λ between 0.4 and 0.7 can be considered to remain in an exploratory model (HAIR et al., 2013); b) average variance extracted (AVE) > 50% (CHIN, 1998; FORNELL; LARCKER, 1981; HAIR et al., 2013) (see Table 2).

Discriminant validity refers to the ability of a measure not to be modified by processes not related to the subject matter of the questionnaire. Said otherwise examine whether the items in one construct are related to the items of another construct. One way to evaluate discriminant validity with reflective models is by calculating the square root of AVE. If the square root of AVE is greater than the correlations between the other constructs, this means that there is discriminant validity (CHIN, 1998; FORNELL; LARCKER, 1981; HAIR et al., 2013) (see Table 2). This can be observed in Table 1, where it is verified that the correlations between constructs are lower than the values of the square root of AVE. The constructs are correlated; however, they are distinct from each other.

Table 2 Convergent and Discriminant Validity

	Individual Innovativeness	Learning Outcomes
Individual Innovativeness	0,770	
Learning Outcomes	0,352	**0,699**
Composite reliability	0,852	0,793
Average Variance Extracted (AVE)	0,594	0,489

Note 1: Diagonally are the square root values of the STROKE. There is discriminating validity as they are greater than VL correlations (values outside the diagonal).

Note 2: All correlations are significant at 1%.

The H1 hypothesis was accepted (see Table 3), although it did not present a high degree of explanation (low ^{R2}). In any case, it was possible to conclude that Individual Inotiveness positively influences learning outcomes in applying teaching cases from teachers' perspectives.

Table 3 Hypothesis Test

	Hypo-thesis	VIF	f^2	structural coef.	standard error	t-value	p-value	R^2 set
Learning Outcomes -> Individual Innovativeness	H1+ (accepted)	1,000	0,14	0,352	0,067	5,273	0,000	0,115

Discussion

The use of teaching strategies that go beyond the limits of traditional approaches, such as the exposition class, is not an easy process. It demands the adoption of a different orientation for learning for the teacher (ALERTON, SILVA, 2018), and especially for the student, who abandons the position of passive agent in the teaching-learning process to assume the role of active subject and participant of the process.

The difficulties for better and broader use of the case method are resistance to change by all involved (GARVIN, 1991), including students and teachers. This research sought to understand the teacher's perception of this change process. Individual innovativeness proved to be an appropriate concept to evaluate how the teacher, as a driver, is conscious and willing to change the teaching-learning process.

Considering that little is known about how teachers and students have used teaching cases (LOURENÇO; MAGALHÃES, 2013), the results presented in the previous section reveal that teachers generally practice a considerable part of the situations proposed by Hurt, Joseph and Cook (2013), among these: ask for advice or information; try new ideas; develop new ways of doing things, and the

challenge to solve problems. However, it does not help the teacher develops an innovative teaching-learning process if it does not reflect on the student's learning. Thus, the teacher who elaborates or applies the case does not adequately know the underlying theoretical bases: constructivist, experiential, and in-action learning (ALBERTON; SILVA, 2018).

We used the instrument for measuring learning outcomes developed by Zimmerman and Pons (1986) to evaluate whether the teacher's innovativeness is sufficient to reach the student, promoting better learning. Knowing that the individual innovativeness of the teacher influences the student's learning outcomes in the context of applying teaching cases allows the teacher to use the case method for teaching with a higher level of certainty about their role for student learning. The teaching case seems to be the pedagogical proposal that best meets the constructivist principles of active, reflective, collaborative and authentically contextualized learning (CALIL; ALMEIDA, TINTI, 2021).

Teaching cases require the adoption of guidance for different learning by teachers. By bringing the concept of individual innovativeness, it is sought to warn that it is not enough for the teacher to be willing to make the use of teaching cases, but to go beyond, to think about how to be innovative within this context because the final repercussion of his activity should reveal as a result an improvement in the student's learning outcomes. Although some studies have used the concept of individual innovativeness within the learning context (ALDAHDOUH; NOKELAINEN; KORHONEN, 2020; BUBOU; JOB, 2020; KIM; KIM; HAN, 2021), little is known, objectively, how teaching cases application affects the student's learning. In the literature, statements demonstrate how teaching cases can be perpetuated in the student's memory—the prof. Paula Chimenti (2021, p. 376) reports that "Fortunately, it is not uncommon to see former Masters or Executive MBA students years later and see them talk about protagonists of memorable teaching cases that accompany and inspire them in their professional lives" (CHIMENTI, 2021).

The most relevant learning results of this research are related to (i) the student's previous preparation to participate in classes, when (ii) the student presents information that extrapolates the content addressed in the text of the case or in discussions of previous classes, (iii) in situations in which students ask unusual and insightful questions, and (iv) in times when the student expresses and defends

opinions that differ from his colleagues. These highlights demonstrate that the teacher's innovative approach generates a student with a more accurate, developed, and autonomous critical sense (RODRIGUEZ et al., 2021).

Conclusion

This research sought to answer the question: What is the impact of individual teacher innovativeness on learning outcomes, considering the application of teaching cases in administration? Thus, assuming as objective to estimate the impact of Individual Innovativeness on Learning Outcomes in the application of teaching cases.

Individual innovativeness can influence the student's learning outcomes by up to 11%, implying that other elements can affect students' learning outcomes. Behaviors that embodied individual innovativeness were the habit of asking for advice or information, experimenting with new ideas, seeking new ways of doing things, and the challenge to solve new problems. This type of teacher behavior can generate the student's interest in the subject addressed in the case, the use of relevant information that was not mentioned in the case, unusual or insightful questions, besides leading the student to express and defend opinions that may differ from those pointed out by other colleagues.

Therefore, a fruitful avenue is opened for the development of new research that seeks to identify other elements that are configured as antecedents of students' learning outcomes in the context of applying teaching cases. For example, in addition to the teacher's innovativeness, it's possible to investigate aspects such as personality traction (ALI, 2019), self-efficacy (BUBOU; JOB, 2020), theory of planned behavior (KIM; KIM; HAN, 2021), and development of competencies associated with teaching cases application (AYRES; CAVALCANTI, 2020; HENDARMAN; CANTNER, 2018). Furthermore, to compare differences in learning outcomes when students are subjected to different teaching modalities, such as face-to-face and remote (GARCIA, CABAÑAS, 2021).

As a limitation of this research, we point out the sample size that is still limited considering the size of the population: teachers of the administration course in Brazil. Calil, Almeida, and Tinti (2021) conducted a bibliometric study of the last 20 years

(2000 to 2020) and identified that teaching cases are predominant in early childhood education and students with special needs. Compared to other education segments, there is still a vast field to be explored, both in the development and application of the case method for teaching.

Thus, it is suggested for future research to apply the questionnaire of learning results with students because this is the most appropriate individual to reveal their feeling of learning in situations of teaching cases application. Other variables, such as teacher experience time, can be incorporated as control variables or moderators. As a result of the need for future research, we recommend following with the application of a questionnaire on learning outcomes from students' perspectives to understand and compare teachers' perceptions *versus* students. It is believed that the research contributes to the debate proposed in the special edition of RAEP, with a call for the theme "Teaching Cases", in the scope of research on Teaching Cases at different levels of education, focusing on undergraduate teaching in administration.

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