

Diagnosis of the Current State of University Academic Performance: Applied Educational Research in the Peruvian Context

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Abstract

The present study is quantitative applied educational research that first analyzes a theoretical framework that affirms that the academic performance of students constitutes a central element in university education since it represents a measure of the learning achieved by individuals and, at the same time, an indicator of the quality of higher education institutions and systems. Likewise, it is specified that the problem of the study is: How does the academic performance of university students' impact in the Peruvian context? Considering that there are factual realities that need to be reviewed in a relevant way, such as difficulties in grades and GPA, difficulties in-class participation, difficulties in delivering assignments and projects on time, inadequate interaction with professors and classmates, and absenteeism. A case study was used, selecting 106 students from a private university in Lima through a non-probabilistic and intentional sampling. The technique applied was the survey and the instrument was a questionnaire. A total of 20 questions were asked considering a work structure called "Construction and Validation of the RAU scale of University Academic Performance" composed of three dimensions (contribution to academic activities, dedication to study, and lack of organization of teaching resources). As a main result, the importance of formative management of students' motivation became evident. It is concluded that it was possible to obtain two dimensions resulting from the model, which are the formative metacognitive dimension and the formative socio-humanistic dimension.

Keywords: Students, academic performance, contribution to academic activities, dedication to study, lack of organization of teaching resources.

1. Introduction

Considering the importance of being able to know how to enhance university academic performance, it is possible to evidence factual realities that need to be reviewed in a relevant way. Such manifestations are difficulties in grades and academic average, difficulties in active

participation in classes, difficulties in delivering assignments and projects on time, inadequate interaction with professors and classmates, and absences. Several bibliographic arguments affirm that university academic performance has an important implication in the student's learning process that has a direct impact on their performance, the measures to generate a quality experience, and the valorization of class sessions.

The academic performance of students is a central element in university education since it represents a measure of the learning achieved by individuals and, at the same time, an indicator of quality of higher education institutions and systems. Likewise, academic performance is called a fundamental axis about the process and continuous improvement of educational quality at an integral level, influencing the classroom climate with didactic strategies to impact student performance that reflects greater dynamism and motivation [1].

Currently, there are international organizations that endorse reflections that highlight not only the academic performance of a student, but the performance of the human being itself. Reviewing directly academic literature, educational centers and a study program must consider the changes and applications of new forms of teaching. In this, it is important to name the adaptability to the digital era, considering that we are in the fourth industrial revolution that affects every day and key aspects of people [2]. The use of social networks has an important implication since it has become an almost indispensable part of everyday activities, the popularity of social networks and their progress in society generate stimuli and is popularized as an important tool of communication, even impacting the mental health of users [3].

It is important to consider in the first instance certain general theories that are closely related to the topic of study. The satisfaction theory allows affirming that student satisfaction is the level of well-being and complacency experienced by students concerning their educational experience and performance [4]. Also, motivation theory is mentioned which considers inspiring and encouraging subordinates to work effectively so that both organizational and individual goals can be achieved [5]. Additionally, motivational psychology theory is considered as a way in which it is desired to explain the causes of behavior, the association between motivation as a causal way, and the effect which is seen as the behavior [6].

It is also important to detail a projective phase that, to be applied in a theoretical manner, the following steps must be carried out: (1) organization of the theoretical components and (2) projection of the unit of analysis (the integration of the theoretical nuclei to create a unit of analysis). Considering that in the first step, 03 theories have already been chosen, the second step is to generate the integration employing an integrative form, that is, as a unit of analysis.

The first theoretical core is the formative management of student motivation, which is conceptualized as a permanent learning process that is determined according to the way the student faces and carries out educational activities, which generates a previous step to learning and plays a role in its action.

The second theoretical core is the formative management of academic confidence, which is conceptualized as a lifelong learning process that is determined by the way the student has a strong belief, firm trust, or confident expectation of what the university can offer them for their benefit in the first instance, academically.

The third theoretical core is the formative management of psychological capital, which is conceptualized as a lifelong learning process that is determined according to the emotional state of development of an individual, with the main factor being the confidence to make the necessary effort concerning academic goals.



Figure 1 Projection of the unit of analysis (integration of theoretical kernels)

Source: self-made

About figure 1 it can be considered what is the result of the integrated theoretical cores, The integrated formative management of student satisfaction is the teaching action that allows the formative management of motivation, the formative management of academic confidence and the formative management of psychological capital to enhance university academic performance through student satisfaction. Likewise, it can be argued as a set of interactions and actions whose main components are students, teachers, educational spaces, and resources to achieve the proposed learning outcomes, mainly considering the welfare experienced by students through the activities carried out by the educational institution to meet their educational needs, i.e., considering student satisfaction as the main measure.

Finally, the following study problem is formulated: How does it impact the academic performance of university students in the Peruvian context?

2. Methods and Methodology:

The present study is applied cross-sectional educational research using a quantitative approach, a case study was used to select 106 students from a private university in Lima through a non-probabilistic and intentional sampling. The applied technique is the survey, and the instrument

was a questionnaire, a total of 20 questions were asked considering a structure of the work called "Construction and Validation of the RAU scale of University Academic Performance" consisting of three dimensions:

1. Contribution to academic activities.
2. Dedication to study.
3. Lack of organization of teaching resources.

Likewise, it is stated that no questionnaire dimensions the construct of university academic performance from the student's perspective, since it is usually referred to indicators such as grade point average or average scores assigned by professors in the subjects being studied [7].

The information was provided virtually, using a Google form to obtain an automated response to closed-ended questions.

As will be seen in the following tables and figures, the scientific category and subcategories of the present research and the findings obtained will be shown for further analysis.

Table 1. Scientific categories and research subcategories

Scientific categories	Research subcategories
University academic performance: this is a value attributed to the results based mainly on the level shown in the learning of higher education students, also considering the level of knowledge of their peers.	1.- Contribution to academic activities. 2.- Dedication to study. 3.- Lack of organization of teaching resources.

Source: " Construction and Validation of the RAU University Academic Performance Scale", [7].

About the table 1 it can be considered that the university academic performance category generates three research subcategories that have a close relationship.



Item
1. Estudio siempre diario para realizar mis tareas que me asignan en mi carrera profesional.
2. Me organizo para ser eficiente en todas las actividades académicas.
3. Estudio con anticipación para presentar exámenes de conocimientos académicos.
4. Mis profesores suelen comentar las favorables de mi rendimiento académico.
5. Utilizo diversos recursos didácticos (mapas conceptuales, diagramas, esquemas, etc.) y para mejorar las asignaturas de mi profesión.
6. Doy mis exámenes de cinco horas, por estudiar un día antes de mis exámenes académicos.
7. Me he faltado material adecuado para acreditar exámenes de los cursos.
8. He faltado a clase sin motivos importantes.
9. Me olvido de entregar a tiempo los deberes (tareas o trabajos) que me asignan los profesores.
10. Se me olvidan los contenidos de las asignaturas que ya he aprobado.
11. Estoy concentrado durante todas las asignaturas.
12. Me gusta exponer ante mis compañeros, los temas de las asignaturas.
13. Me considero que realizo bien exámenes o trabajos académicos.
14. Suelo completar mis estudios con cursos extra-académicos.
15. Me gusta estudiar material adicional al básico de las asignaturas.
16. Me es fácil trabajar en equipo para presentar mis deberes de las asignaturas.
17. He aceptado mis ideas incorrectas cuando trabajo en equipo.
18. Yo participo activamente conforme con el contenido de las clases.
19. Mis calificaciones y evaluaciones son acorde con mi desempeño académico.
20. Estoy satisfecho con la carga de trabajo de las asignaturas.

Figure 2 Questionnaire entitled "Construction and Validation of the RAU University Academic Performance Scale".

Source: " Construction and Validation of the RAU University Academic Performance Scale", [7].

About the figure 2, through the indicator questionnaire, results can be obtained to evidence the importance of formative management of students' motivation became evident.

In addition, supported methods are considered to validate how the formative management of student satisfaction can be managed in each theoretical core.

The formative management of student satisfaction can be managed from the formative management of student motivation in a very transcendental way because the process of optimizing the well-being that students experience drives them to perform a series of tasks and objectives that are proposed for the learning of curricular content.

The formative management of student satisfaction can be managed from the formative management of academic confidence in a very transcendental way because the feeling of fulfillment of the educational need is closely related to the measure of having a belief, confidence, and expectation regarding what the house of studies offers directly impacting the student.

The formative management of student satisfaction can be managed from the formative management of psychological capital in a very transcendental way because the feeling of fulfillment of the educational need is closely related to the positive psychological state of a person having as a slogan the self-efficacy that impacts on the well-being produced by satisfying a need that in this case, is directly related to the educational issue of the student.

It is important to point out that the person who will carry out the formative management of student satisfaction will be the teacher in his role as guide, collaborator, and facilitator, considering certain actions to be able to do so, and that this is the first time that these concepts are related through formative management.

3. Results:

The results were processed to analyze the student's performance to contrast with the scientific category and the research subcategories.

Factor 1. Contribution to academic activities

Items: 4,11,12,13,14,14,15,16,17,18, 20

Dedication to study

Items: 1,2,3,5,19

Factor 3. Lack of organization of teaching resources

Items: 6,7,8,8,9,10

Internal consistency of the instrument (reliability)

Table 2. Case processing summary

		N	%
Cases	Valid	106	100,0
	Exclusion	0	,0
	Total	106	100,0

Source: self-made

About the table 2 validate the internal consistency of the questionnaire through Cronbach's alpha.

Table 3. Reliability statistics

Cronbach's alpha	N of elements
,953	20

Source: self-made

About the table 3 a score of ,953 was obtained, which confirms a high internal consistency and, therefore, the instrument is shown to be valid and reliable for the evaluation of university academic performance in the study sample.

Table 4. FACTOR 1. Contribution to academic activities

		Frequency	Percentage
Valid	LOW	2	1,9
	MEDIUM	51	48,1
	HIGH	53	50,0
	Total	106	100,0

Source: self-made

About the table 4 shows that, of the total of 106 students surveyed, 1.9% of them perceive to have a low level of contribution in academic activities; 48.1% of them perceive to have a medium level of contribution in academic activities and 50% of them perceive to have a high level of contribution in academic activities.

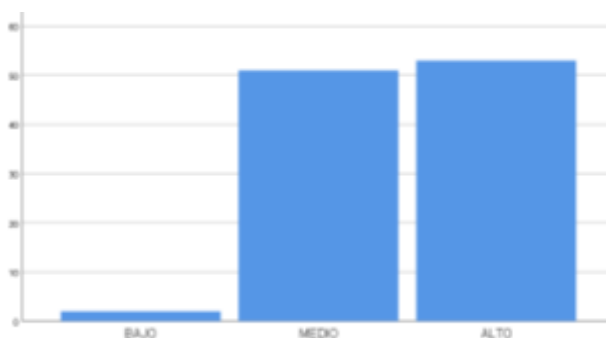


Figure 3 Factor 1 (grouped) contribution to academic activities

Source: self-made

About the figure 3, although half of the sample is at a high level, it is striking that almost the other half is at a medium level, which tells us that the contribution factor in academic activities is a factor that is not favorable.

Table 5. FACTOR 2. Dedication to study

		Frequency	Percentage
Valid	LOW	4	3,8
	MEDIUM	37	34,9
	HIGH	65	61,3
	Total	106	100,0

Source: self-made

About the table 5, the total of 106 students surveyed, 3.8% of them perceive to have a low level of dedication to study; 34.9% of them perceive to have a medium level of dedication to study and 61.3% of them perceive to have a high level of dedication to study. In that sense, it has a more favorable behavior, it has 61% in a high position.

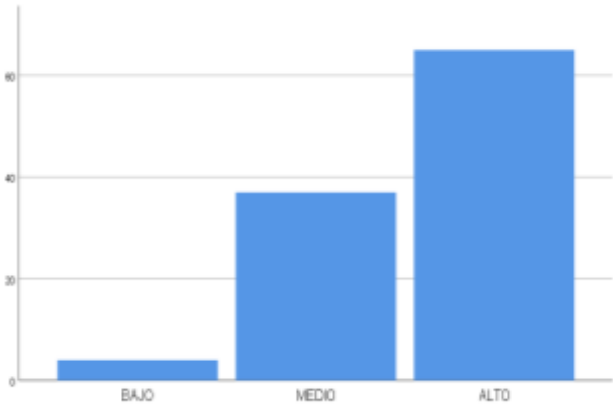


Figure 4 Factor 2 (grouped) dedication to study.

Source: self-made

About the figure 4, it can be observed that more than a third of the students remain at the medium level, and it is also noteworthy that there are several students at the low level.

Table 6. FACTOR 3. Lack of organization of didactic resources

		Frequency	Percentage
Valid	LOW	32	30,2
	MEDIUM	26	24,5
	HIGH	48	45,3
	Total	106	100,0

Source: self-made

Table 6 shows that, of the total of 106 students surveyed, 30.2% of them perceive to have a low level of lack of organization of didactic resources; 24.5% of them perceive to have a medium level of lack of organization of didactic resources and 45.3% of them perceive to have a high level of lack of organization of didactic resources.

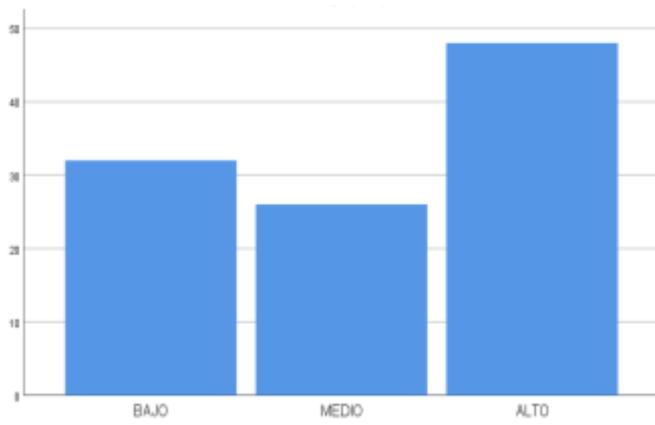


Figure 5 Factor 3 (grouped) lack of organization of teaching resources.

Source: self-made

About the figure 5, students do not organize resources for learning management and have a passive student profile, with more than one-third in the medium position and more than one-third in the low position. It is one of the weakest university academic performance factors, with more difficulties.

GLOBAL RAU STATISTICS

Table 7. Mean, mode, and variance of University Academic Achievement (RAU)

N	Valid	106
	Lost	0
Media		2,41
Mode		2
Variance		,301
Sum		255

Source: self-made

About the table 7, proceeded to validate the internal consistency of the questionnaire at the global level. This indicates the need to work on the dimensions because it has the highest expression (more than 50%) at the medium level, and this is an expression of all its dimensions.

Table 8. Validity of University Academic Achievement (RAU)

		Frequency	Percentage
Valid	LOW	3	2,8
	MEDIUM	57	53,8
	HIGH	46	43,4

	Total	106	100,0
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Source: self-made

About the table 8, in detail lines, the most favorable factor is factor 1: Contribution to academic activities, then factor 2: Dedication to study has difficulties with the highest incorporation of medium and low levels. The most unfavorable dimension is factor 3: Lack of organization.

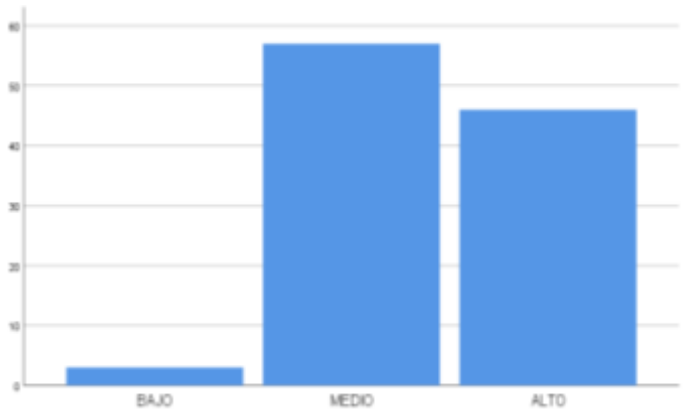


Figure 6 RAU (pooled) validity of University Academic Performance.

Source: self-made

About the figure 6, an epistemological reconfiguration is established considering configurations and dimensions from the identification of the theoretical components of student satisfaction (relationships), and the integration of the nuclei that integrate the model (organization) to subsequently assume a conception of student satisfaction (emerging product).

In this sense, configurations of the model are revealed about the formative management of motivation (6, 8), which can be defined as a planned approach that encourages and develops the motivation of individuals, especially in an educational context, where the teacher must give incentives to students when they are in the class session both at the level of grades with extra points and at the level of recognition of outstanding work, level of attendance, class participation and highlighting students who have outstanding grades, so that all this can reach the proposed.

Likewise, the teacher will set small goals, proposing learning as if it were a discovery, carrying out what was planned in an academic way through gamification, promoting the importance of collaborative learning, and finally, the teacher must generate academic expectations for the student through motivation to achieve the academic degree, transmitting the importance of excelling in their grades to be more competitive in the workplace and to be able to integrate the knowledge acquired, considering that having an academic degree will generate pride in their family and recognition in their social group.

Thus, formative motivation management seeks not only to temporarily inspire participants but also to cultivate a sustainable and enduring process that contributes to continued success in the

learning process. In other words, formative motivation management and the perception of academic incentives are closely linked, as both have a significant impact on students' academic performance and engagement.

In this sense, the configuration of perception of academic incentive and optimism (8,9) is revealed, which can be defined in how students interpret and value the rewards, recognitions, or stimuli that are linked to their academic performance. A student with a strong perception of academic incentives may be motivated by the possibility of obtaining good grades, awards, recognition, or any other type of reward that is associated with academic success, thus also creating academic expectancy.

This is why the configuration of academic expectation in the design of goals (6,7) is revealed, since the previously held perception may vary among individuals and may be influenced by factors such as school culture, family expectations, and personal goals.

Similarly, incentive perception, academic optimism, and academic expectation are interrelated and play a crucial role in students' motivation and performance. In summary, incentive perception, academic optimism, and academic expectation are intertwined in a dynamic cycle. Perceived incentives and academic optimism can influence the formation and maintenance of positive academic expectations, creating an environment conducive to students' educational success and personal development.

In this sense, the configuration of the formative management of academic confidence is revealed (3,4), which can be defined as a structured and systematic approach to cultivating and strengthening students' confidence in their academic abilities throughout an educational or formative process. This approach involves strategies and practices aimed at building students' strong and positive confidence in their ability to learn, meet academic challenges, and achieve educational goals.

To carry out the formative management of academic confidence, the teacher must generate academic self-confidence in the student through a friendly environment that allows participation in class sessions, with constant on-site and virtual accompaniment with attention to consultations via forums, internal messaging, and emails, among others. Likewise, the teacher should promote academic self-efficacy in the student through individual and teamwork that allows them to have a product where they apply all the techniques and knowledge acquired during the class sessions under the teacher's guidance. Finally, the teacher should motivate the student's self-learning in the class session through case studies or examples that generate exploration and deepen the topic discussed, so the student can take advantage of resources to obtain more knowledge autonomously, taking advantage of their skills and competencies.

From this perspective, the formative management of academic confidence seeks to create an environment that nurtures and supports students' confidence in their academic abilities, thus contributing to greater educational success and well-being, transforming the epistemological bases of student satisfaction. Consequently, the units of formative management of motivation and academic confidence are unveiled as an expression of the formative metacognitive dimension shown in the following figure.

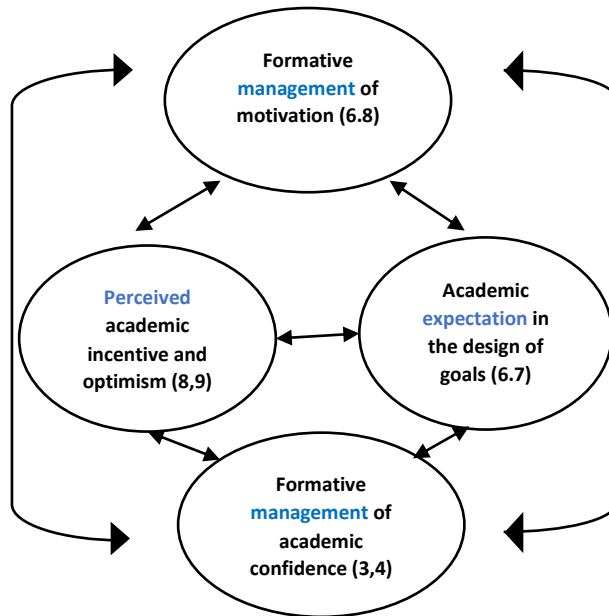


Figure 7 Meta-cognitive formative dimension.

Source: self-made

About the figure 7, the meta-cognitive formative dimension promotes the movement of the described relationships reveals the configuration of the development of creative self-efficacy in problematic situations (4, 10) which is defined as the process that allows strengthening a person's belief and confidence in his or her ability to approach and solve problems creatively. Creative self-efficacy implies the conviction that one possesses the necessary skills and resources to generate innovative solutions to challenges and problem situations.

Along these lines, the development of creative self-efficacy in problem situations is closely linked to psychological motivation. Creative self-efficacy refers to the belief in one's ability to generate original ideas and solve problems creatively, while psychological motivation encompasses the internal factors that drive and direct a person's behavior.

Thus, the configuration of the psychological transcendence in academic self-efficacy (2,5) is unveiled, which is defined as the ability to go beyond perceived limitations and experience a heightened sense of meaning and purpose concerning academic goals. In the context of psychology and education, academic self-efficacy refers to an individual's belief in his or her ability to cope with and succeed at specific academic tasks.

Along these lines, the psychological transcendence in academic self-efficacy and psychological capital are related in the sense that both concepts focus on positive aspects and internal resources that influence psychological well-being and performance in various areas, including academia.

From this perspective, the configuration of the formative management of psychological capital is revealed (5,10), which is defined as the application of specific educational strategies and practices aimed at cultivating and strengthening the psychological capital of individuals in a training or educational environment. Psychological capital includes components such as self-efficacy, optimism, resilience, and hope, which are fundamental factors for well-being and positive performance in different contexts, including the academic environment.

In turn, the formative management of psychological capital involves the deliberate application of educational strategies to strengthen the key components of psychological capital in an academic environment, thus promoting the well-being and positive performance of students.

To carry out the formative management of psychological capital, the teacher must generate psychological empowerment in the student by providing self-confidence with encouraging and motivating words before, during, and after the assigned tasks, friendly feedback that encourages them to have a continuous improvement, giving them freedom in the presentation of a given task and being able to have different ways of presenting the product (infographics, graphic organizer, mind map, podcast, among others), for this the student must have solid knowledge of the necessary tools for its correct realization. It is also important to instill academic optimism, for this both the teacher and the student must be at the forefront of ICTs to be used in the development of classes, you can also incorporate suggestions that students make feedback on the class and that the teacher can consider these suggestions.

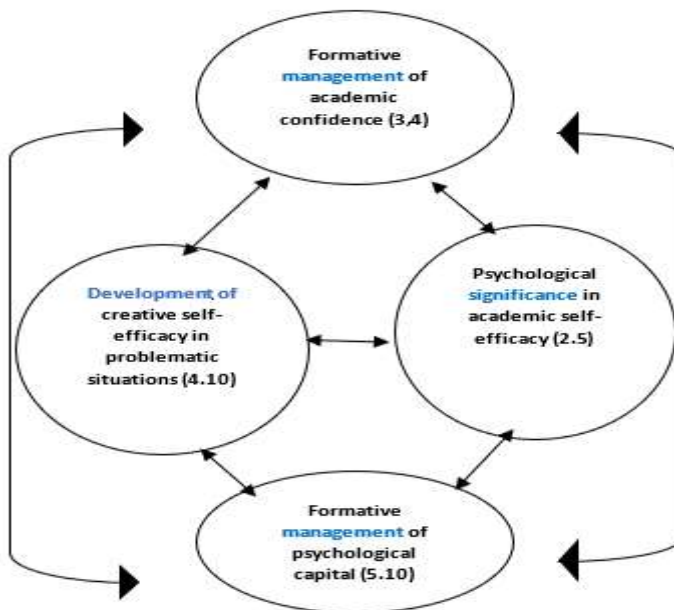


Figure 8 Socio-humanist formative dimension.

Source: self-made

About the figure 8, consequently, the unity of the formative management of psychological capital is revealed, as an expression of the socio-humanistic formative dimension shown in the figure.

4. Discussion:

Applying a practical theoretical position of university academic performance, three key factors can be taken into consideration: the first factor is the contribution to academic activities, which involves the good habits and activities that the student performs to enhance their student experience, it is considered a key factor because of the characteristics that can generate in student performance [4].

A second factor is dedication to study, it involves involving the company and the effort in time devoted to academic activities to optimize results, it is considered a relevant factor because it can enhance academic performance [5].

Finally, a third factor is the lack of organization of didactic resources, which happens when the academic expectations and confidence that a student may have regarding the studies are not correctly considered to see alternatives for improvement so as not to have complications with the student experience [6].

All this leads to a review of their scientific literature and primary research results that may result in a relevant way to be able to consider a scientific novelty [7]. University academic performance is an analysis that can be considered at levels of self-efficacy and procrastination [8].

A precise reflection is important to be able to specify the essential relationships and the regularity to be able to show the scientific novelty, important to show the result of the research apparatus.

Consequently, the formative management model of student satisfaction is energized by the relationships of the configurations, through which the following dimensions are defined:

Metacognitive formative dimension, which involves the knowledge and regulation of one's cognitive processes, i.e., the ability to think about how one thinks and to regulate one's mental processes.

Socio-humanistic formative dimension implies an educational approach that recognizes the importance of social and humanistic aspects in the learning process.

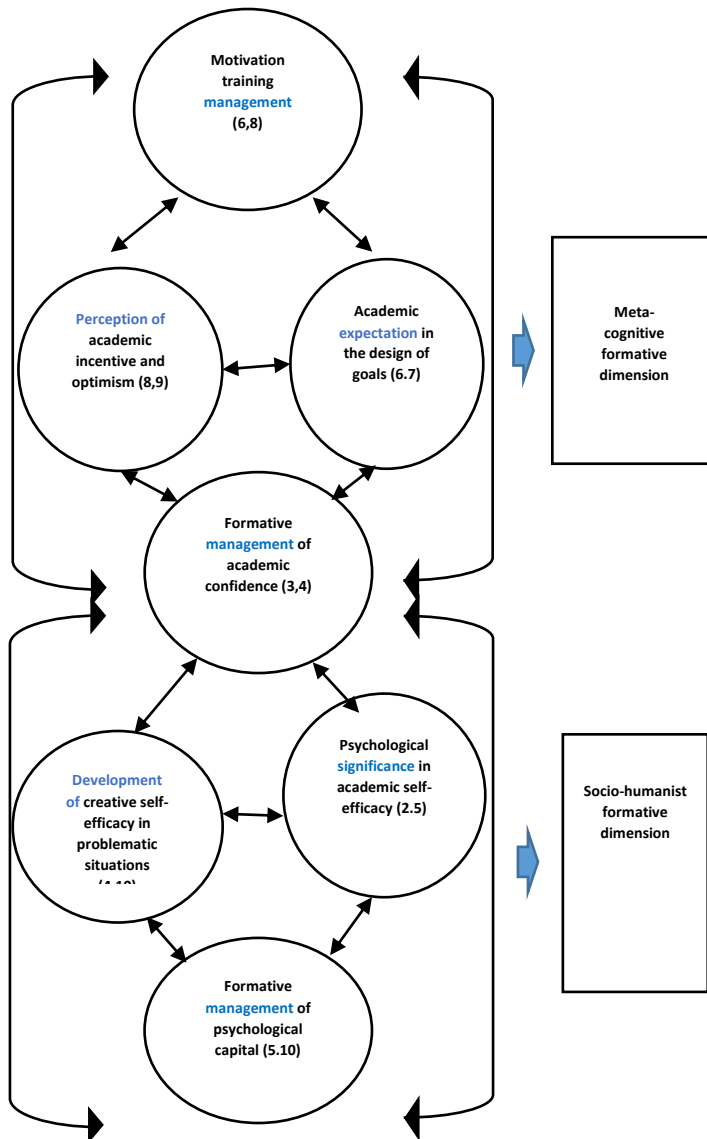


Figure 9 Model of formative management of student satisfaction.

Source: self-made

About the figure 9, the dimensions shape the movement of developmental teaching practice in student satisfaction.

5. Conclusions:

The current state of university academic performance was diagnosed, showing the following results: the importance of formative management of student motivation, the importance of formative management of academic confidence, and the importance of formative management of psychological capital.

The results of the diagnosis of university academic performance had as factors 1. the contribution in academic activities, being not so favorable, factor 2. dedication to study, being favorable and factor 3. lack of organization of didactic resources, being not favorable at all.

It is important to consider motivational strategies at the program and plan levels to not only enhance university academic performance but also student satisfaction.

Finally, it was possible to obtain two dimensions from the model: the metacognitive formative dimension and the socio-humanistic formative dimension.

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