

Measurement of the management skills of academic directors in a higher education institution**Medición de las habilidades directivas de los directores académicos en una Institución de Educación Superior**

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Abstract

The evaluation and the teaching practice are subjects of great importance in the educational field, and objects of study of research centers and higher education institutions. In this sense, this article shows some reflections as a product of the first phase of research, currently under development, about teacher evaluation in higher education, closely linked to the practices developed by academic staff at this level. educational. The first point that we present is made up of the latest reforms to Article 3 of the Constitution, the maximum normative reference for education in Mexico. Next, a brief overview of the recent history of the evaluation of education is made and its relationship with the much-touted quality is analyzed. A third section is made up of a series of discussions and analysis on teacher evaluation, opening the debate about whether it is worth reconsidering the concept, given that the original purpose of this has been perverted, as we establish in the following subtopic. The conclusive lines call for the urgency of recovering the essence of evaluation, as a means for the improvement and transformation of ourselves, as educators, and of our world, based on our contexts. We accept that if, as a result of the improvement of our practices, we achieve a salary or ladder promotion, welcome; but we make a call to uphold the original meaning of the evaluation.

Teacher evaluation, Teaching practice, Higher Education**Resumen**

La evaluación y la práctica docente son temas de gran trascendencia en el ámbito educativo, y objetos de estudio de centros de investigación e instituciones de educación superior. En este sentido, en el presente artículo se muestran algunas reflexiones como producto de la primera fase de una investigación, actualmente en desarrollo, en torno a la evaluación docente en la educación superior, estrechamente vinculadas a las prácticas que desarrolla el personal académico en este nivel educativo. El primer punto que presentamos lo constituyen las últimas reformas al artículo 3º Constitucional, máximo referente normativo de la educación en México. En seguida, se hace un somero recorrido por la historia -reciente- de la evaluación de la educación y se analiza su relación con la tan traída calidad. Un tercer apartado queda conformado por una serie de discusiones y análisis sobre la evaluación docente, abriendo el debate acerca de si vale la pena reconsiderar el concepto, dado que el original fin de esta se ha pervertido, como lo establecemos en el subtema siguiente. Las líneas conclusivas llaman a la urgencia de recuperar la esencia de la evaluación, como medio para la mejora y la transformación nuestra, como educadores, y de nuestro mundo, a partir de nuestros contextos. Aceptamos que si, como producto de la superación de nuestras prácticas, logramos un ascenso salarial o escalafonario, bienvenida; pero hacemos un llamado a sostener el sentido original de la evaluación.

Evaluación docente, Práctica docente, Educación Superior

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Introduction

Management is a vital function of the organisation and according to David and Newstrom (1995), Cañeque (2017) and Moreno (2022), the managerial role takes on a humanistic nuance as, in the current uncertainty, leaders are needed who foster transparency, sociability and integration.

Managerial skills are a key factor for success in organisations, as they allow synergy to be achieved by integrating all other resources. According to Whetten & Cameron (2011), they are the building blocks of effective management. Based on Naranjo (2016), Lechuga (2007) and Madrigal (2009), management skills are the set of knowledge, skills, attitudes, behaviours and abilities learned and acquired through practice and training, which allow the functions and roles of management to be exercised effectively.

As Davis and Newstrom (1995), Daft (2007), García and Brás-Dos-Santos (2020) and Nahoul (2020) argue, management skills contribute to the generation of optimal, functional and productive work environments, boosting the potential of human talent, directing efforts towards achieving organisational objectives and achieving motivated staff with a high degree of commitment and a sense of belonging to the organisation; in short, they enable competitive advantages to be achieved, generating high levels of productivity and performance.

It is important to emphasise that management skills are cultivated, educated, taught and developed; but in order to perfect them it is necessary to start with a diagnosis of the current level of development. As García and Brás-Dos-Santos (2020) state, it is necessary to know what the current knowledge, skills and abilities are, in order to design strategies for strengthening them. The research topic is of great relevance given that higher education institutions (HEIs) have a great responsibility to train future managers and, therefore, must develop their managerial skills. But there is no better way to teach than by example, so strengthening the managerial skills of academic authorities will have a positive impact on the educational service they offer.

In the last two decades, several research studies have been carried out on management skills and their correlation with different variables; a search in various academic search engines revealed fifteen recent academic productions related to the topic of study. Most of them were carried out abroad, mainly in Peru, Spain and Cuba. At the national level, the research by Pérez et al. (2008) stands out, in which they carry out a measurement of managerial skills in the Technological Institutes of southeast Mexico; the research work by Moreno (2022), in which he analyses organisational change and the managerial skills that were required in times of Covid-19 and the research by Nahoul (2020), entitled "Managerial skills as a factor of influence in the organisational climate of a Higher Education Institution in Xalapa, Veracruz". But there is no research on the subject for the technological university subsystem.

The general objective of this research is to measure the managerial skills possessed by the academic directors of the institution, so that based on the diagnosis they can design a training programme to strengthen them; and the specific objectives are: to detect the management skills required by academic directors to carry out their functions effectively and efficiently at present; to identify the most critical problems faced by academic directors and the reasons why academic directors fail; to identify the level of development of the management skills of academic directors, based on the perception of subordinates (teaching staff and administrative staff) and the directors' own self-assessment; and to analyse the relationship between the perception of subordinates with respect to the self-perception of academic directors.

Management

"Since ancient times, the management of people has been an activity inherent to the social structure developed by human beings. From the primitive tribes that organised themselves to hunt, to the large corporations that dominate today's economic orb, the activity of management has always been present" (Ortega, 2015, p.22).

"The objective of management is to organise group members and to coordinate, direct, lead and supervise their activities in order to obtain the desired results and goals" (Madrigal, 2009, p. 23). Management consists of directing operations through the cooperative effort of subordinates to obtain high levels of productivity through motivation and supervision.

Based on the above definitions, three common aspects of management can be identified: the human element, the supervision of effort and the cooperation of subordinates' effort. It is important to recognise that the qualities of managers have changed over time, as the current landscape of competitiveness and globalisation has forged new managerial schemes. In the words of Lechuga (2007): "Thousands of managers were high level in the boom, but in the crisis they collapsed; they were excellent navigators in calm waters, but in turbulent waters they failed" (p. 15).

Key points of a manager today

According to Warren Bennis (1989), quoted by Payeras and Ronco (2002), and after studying 80 successful entrepreneurs, he identified 5 key points that a leader must have today, which I summarise below:

- Be clear about where you want to go "guiding vision".
- Ability to transmit love and commitment in what they do, "passion".
- Generate trust, based on integrity and honesty.
- Be empathetic, open to new things and attentive to opportunities "open-mindedness".
- Show boldness to learn, even from times of adversity and mistakes.

Lechuga (2007) states that some high-performance managers are born, but they are also made; and that the profile of such managers is made up of three elements: knowledge, skills and attitudes. Similar reasoning is held by García and Brás-Dos-Santos (2020), who state that, through training, coaching, experience and continuous effort, we can all develop managerial skills.

García and Brás-Dos-Santos (2020), manage to define the relevance of the managerial function today:

The manager must act as a transforming element that empowers people and guides them towards the objectives and manages to count on the support of each of the participants and the organisation. On the other hand, the manager also has the responsibility to contribute to the generation of optimal, functional and productive work climates based on the practices of his or her actions. (p. 58).

Managerial skills

The word skill refers to the capacity or ability to execute something. "Managerial skills are those necessary to be able to exercise the functions and roles of management, therefore, they are a set of skills that would be desirable in a manager" (Naranjo, 2016, p. 84).

Whetten & Cameron (2011) define managerial skills by identifying their characteristics that differentiate them from other skills, which are summarised below:

- They are behavioural, as they lead to a certain outcome and are tangible and observable by other individuals.
- They are controllable: Their performance can be self-regulated by the manager him/herself; therefore the skills can be demonstrated, practised, improved or consciously curbed.
- They can be developed: Practice and feedback allow them to be improved.
- They are interrelated and overlapping: The skills do not manifest themselves individually, but are an integrated whole; the manager uses them in combination.
- They are sometimes contradictory or paradoxical: An effective manager must be flexible and creative and at the same time controlling, stable and rational; both encouraging and competitive, both participative and driving.

According to Madrigal (2009) "Skill is the ability of the individual acquired by learning to produce expected results with the maximum of certainty, with the minimum of time and economy and with the maximum of security" (p.1).

I take this definition as a reference, as it shows that skills can be acquired or developed; the same happens in the management skills themselves, the executive may possess some of them naturally and can develop the ones he/she needs and needs, everything can be improved.

Management Skills in Higher Education Institutions (HEIs)

Ascón et al (2019), identifies that the international organisations that direct educational policies in Latin America emphasise that despite the important efforts in the training of managers in management skills that allow their development in highly vulnerable environments, there is still much work to be done in relation to the existing potentials in HEIs, which is why a climate of excellence must be created that encourages the spirit of self-improvement and keeps professionals committed.

Whetten and Cameron (2011), for their part, consider the importance of the development of essential management skills in HEIs as a technique that facilitates the interrelation of theoretical and practical components in the holistic strategic management of personal management functions in their projection towards other subjects, which determines their high complexity.

For Ascón et al (2019), the development of managerial skills in higher education enables the achievement of the formulated objectives, in an interrelated manner with personal and organisational goals; they can be learned through the teaching-learning process or through self-development acquired in practice and demonstrated in experience when executing tasks or strategic actions indicated, which facilitate the achievement of the pre-established objectives.

The development of HEIs is also conditioned by the ever-changing environment, which constantly requires managers to take on challenges and be at the forefront of globalisation, technology and new ideologies; therefore, it is necessary to strengthen managerial skills to guide the staff in their charge towards the achievement of the institutional vision and mission through the application of methods, techniques and instruments of efficiency and quality that contribute to the full flourishing of human potentialities and raise their competitiveness and increase their quality of life (Pérez et al, 2008).

Ascón et al (2019), emphasises the importance of managerial skills in HEIs, as the decisions and actions taken by managers have a direct effect on society and companies, through the training of future leaders. According to Ascón et al (2019) the impacts of globalisation involve the flow of technology, ideas and values that transcend borders; therefore, internationalisation processes constitute a response to the globalised world. Based on this idea, Ascón et al (2019) propose that HEIs should integrate a global, an international and an intercultural dimension into the substantive functions of their educational processes, as well as institutional strategies for strengthening objectives through the improvement of educational policies.

Therefore, management skills are the theoretical and practical components necessary to face the challenges of HEIs, the fundamental information and knowledge such as mastering relevant data and timely professional knowledge, sensitivity to knowledge and facilities for social development. Thus, meta-skills relate to those that enable managers to develop specific skills needed in particular circumstances.

Referential framework

The present research work seeks to measure managerial skills in a public organisation in the educational sector. The institution under study is a university belonging to the subsystem of technological and polytechnic universities, located in the centre of the country, with more than two decades of operation.

Twenty-two educational programmes are offered in this institution, 11 of which are university technical courses and 11 of which are continuing studies (bachelor's degree level); its total enrolment ranges between 4,500 and 6,700 students, depending on the four-month period of the year, with the highest demand in September/December; 65% of these students are studying university technical courses and the remaining 35% are studying bachelor's degrees. The educational programmes are grouped for administration into 5 academic divisions, each headed by a division director and led by the academic secretary. Something that distinguishes the governing body of this institution is that all the directors before holding this position were part of its teaching staff and 4 of them have more than 20 years of seniority.

According to Provencio (2020), the SARS-CoV-2 coronavirus pandemic (COVID 19), "is a multiple and global crisis, unprecedented in its health origins and its abrupt irruption; unique in its characteristics and speed of spread" (p. 202).

Due to the increase in contagions and given that on 11 March 2020 the World Health Organisation (WHO) declared it a pandemic, on 16 March of the same year, the Secretary of Public Education of the Federal Government of the United Mexican States, Esteban Moctezuma Barragán, published in the Official Gazette of the Federation the agreement 02/03/20 suspending classes at all educational levels from 23 March of the same year; This forced an abrupt migration from face-to-face to virtual education; each institution faced this reality from different perspectives and with the resources available to them. The university that is the subject of this research received this provision 5 weeks before the end of the term and without a Learning Management System (LMS).

If managing staff and gaining their commitment is a difficult challenge, it is even more so when working remotely, with social distance as a barrier. The home office requires management skills to lead remote teams, new time management schemes, the use of technological platforms to enhance communication and manage organisational operations, as well as maintaining focus on the organisational mission and vision.

Methodology

Research paradigm

The first was qualitative in nature and sought to identify the skills required to exercise academic leadership in an HEI efficiently and effectively; the research instrument used was a structured interview with division directors, consisting of 7 questions and an evaluation of the degree of use of twenty-two skills or behaviours during the working day of an academic director; The second phase was quantitative in nature, and sought to measure the managerial skills possessed by the academic directors of the institution, based on the perception of subordinates (teaching staff and administrative personnel) of the level of development of the academic directors' managerial skills, as well as on the self-assessment of the division directors themselves. In order to obtain the information, a survey was applied on the Google platform to a representative sample of teaching staff and division directors to find out their assessment of the level of competence of the management skills of each division director.

By its nature it is a basic research, since it is based on the theoretical framework and existing state of the art on the subject; through field research, information was obtained which, through statistical analysis, made it possible to understand the relationship between the study variables and provide specific knowledge about the study phenomenon in the institution under study.

Population and sample

In order to identify the managerial skills of divisional managers and to measure their effectiveness, the assessment was carried out from two perspectives:

- a) The self-assessment of the division heads.
- b) The perception of a representative sample of teaching staff in each academic division.

The top management in the academic area is made up of only 6 people (academic secretary and 5 division directors), both the self-evaluation survey form and the structured interview were answered by 4 division directors, only one did not answer the form and did not attend the personal interview.

As for the teaching staff, for practical purposes and to save time and resources, a representative sample was determined, considering the following parameters: 99% confidence interval, 1% degree of error and a finite population of 139 full-time teachers (FTEs). Table 1 shows the total number of FTEs per academic division.

ACADEMIC DIVISION	TOTAL DE PTC'S
Economic-Administrative Division (DEA)	51
Industrial Electromechanics Division (DEI)	23
Division of Chemical Biology (DQB)	25
Division of Information and Communication Technologies (DTIC)	22
Division of Industrial Processes (DPI)	18

Table 1 PTC's by academic division, Source: Own elaboration, with information provided by the Academic Secretariat

Sample and sampling

Considering a confidence interval of 99%, a degree of error of 1% and the number of PTC's in each academic division, the sample was determined as follows:

Academic division	Ptc's to survey
DEA	28
DEI	17
DQB	18
DTIC	17
DPI	14

Table 2 Sample of PTC's to be surveyed by academic division Source: Own elaboration, calculation of the sample with finite population formula

With the authorisation by official letter from the academic secretary to apply the surveys and conduct the interviews with the academic directors, an official letter was sent to each division director with the links to the two survey forms, indicating the deadline for answering them; the day and time of the structured interview was also scheduled, which was carried out personally with the division directors.

Instruments

Information on the study variables was collected through field research, using the structured interview and the Google platform survey as instruments.

Survey form

The "Personal Assessment of Managerial Skills (PAMS)" survey, designed by Whetten and Cameron, which consists of 85 items, was used. This survey was completed by each academic director as a self-assessment exercise of his or her managerial skills, and was also completed by a representative sample of subordinates as a heteroassessment exercise.

The 85 items of the questionnaire group managerial skills into three categories: personal, interpersonal and group.

Personal managerial skills are subdivided into three subcategories: developing self-awareness, managing personal stress, and analytical and creative problem solving.

Interpersonal management skills are subdivided into four subcategories: leading, guiding and supportive communication, gaining power and influence, motivating others, and managing conflict.

Group management skills are subdivided into three subcategories: empowerment and delegation, effective team building and teamwork, and leading positive change.

Structured interview

Academic managers were interviewed to identify which attributes they associate with managerial effectiveness, following the interview format used by Whetten and Cameron.

Results

Identification of the managerial skills required by the academic heads to perform their duties effectively and efficiently

During the interview, the academic managers assessed the frequency with which they used the following 22 skills during their working day, which made it possible to identify essential activities.

Motivate others	20
Active listening	20
Creative problem solving	20
Conflict management	19
Analytical decision-making	19
Interpersonal communication	19
Setting specific goals and objectives	19
Managing personal time and stress	18
Promote continuous improvement and quality	18
Defining or solving complex problems	18
Team building and teamwork	17
Capitalise on personal awareness	17
Negotiate	17
Facilitate organisational change	16
Facilitate group decision making	15
Articulate and energise a vision	15
Delegating	15
Holding meetings	14
Empowering others	14
Giving speeches or presentations	13
Conduct interviews	12
Gaining and using power	11

Table 3 Skills or behaviours used during their working day

Source: Own elaboration, based on the assessment made by the academic managers

The skills most used in their working day coincide with most of those identified by Nahoul (2020): communication, motivation, conflict management, analytical and creative problem solving, team building. These are included in the classification of the nine fundamental management skills, which Whetten & Cameron (2011) organised into three categories: personal, interpersonal and group.

They then inquired about the skills they considered most important and necessary to be a successful manager in their line of work. Eight essential skills were identified, which include group skills (empowerment and delegation, integration of effective work teams and adaptation to change), interpersonal skills (emotional intelligence, effective communication and leadership) and technical skills, which refer to having mastery of the technical area of the educational programmes they manage.

Managers with professional maturity have the ability to recognise the talent and good practices of other managers, so they were asked about the extraordinary practices or skills they have identified in other effective managers.

1. Emotional intelligence.
2. Teaching, professional and managerial experience.
3. Ability to integrate effective work teams.
4. Effective communication skills.
5. Leadership.
6. Time management.
7. Adapting to change

Table 4 Extraordinary practices and/or skills of an effective manager

Source: Own elaboration, based on interview

The information provided on this subject confirms what García and Bras-Dos-Santos (2020) affirm, highlighting that the participative group management style is the one that enables high levels of productivity to be achieved, as it allows the experience and expertise of the collaborators to be used, while at the same time encouraging autonomy and the development of the collaborators' skills.

Identification of the most critical problems faced by an academic director and the reasons why academic managers fail

They were also asked about the reasons why academic managers fail, highlighting the lack of knowledge of the institution's regulations, guidelines and operating procedures, communication problems, the lack of strategic planning aligned with the organisational philosophy, the absence of resilience and adaptability, egocentrism and the lack of concern for strengthening their management training.

When asked about the most critical problems they face, all principals agreed that the main challenges they face are: the inefficient performance of some teachers; student conflicts; limited resources, mainly equipment, laboratories and software, which undermine the practical training of students; and achieving and maintaining accredited academic programmes.

Training plan for an academic director

Based on the information obtained and confirming with the academic directors the points on which an academic director should be trained, 6 essential aspects were identified:

- Processes carried out by the academic director, based on the quality management system and the applicable regulations.

- Leadership and effective communication
- Time management and adaptation to change.
- Processes of accreditation and evaluation of educational programmes by bodies recognised by COPAES.
- Strategic planning and management.
- Development of the cognitive skill of divided attention (multitask).

Subordinates' perception of the level of development of the managerial skills of their division manager

With the weighted average of each category of managerial skills per academic director, the institutional rating of the level of development of the academic directors' managerial skills was concentrated in a matrix, obtaining a very similar level of performance in the three groups of managerial skills and at the academic division level. As can be seen in table 5, no category is close to performance level 6; the three groups are close to level 5, which is an acceptable result but not ideal, so it is necessary to strengthen the skills of the division directors.

CATEGORY	DEA	DTIC	DEI	DPI	MEDIA
AVERAGE PERSONAL SKILLS	4.93	4.76	5.04	4.90	4.91
AVERAGE INTERPERSONAL SKILLS	5.04	4.82	5.32	4.69	4.97
AVERAGE GROUP SKILLS	5.14	4.86	5.19	4.76	4.99
OVERALL AVERAGE	5.00	4.80	5.16	4.81	4.94

Table 5 Concentrated assessment of subordinates
Source: Own elaboration, based on the results of the subordinate survey.

Academic managers' perception of their own development of managerial skills

Table 6 shows the self-assessment of the 10 categories of management skills of the four divisional directors, as well as the average per group of management skills and per category at institutional level. The main areas of opportunity are personal stress management, conflict management and supportive leadership and communication. The manager with the lowest self-assessment is the ECD manager, followed by DTIC, which is congruent with the assessment of subordinates.

In relation to the director with the highest self-evaluation, the director of DEA, followed by the director of DEI; in the evaluation of the subordinates the result was the opposite, i.e. the director with the highest evaluation was the director of DEI, followed by the director of DEA.

CATEGORY	DEA	DTIC	DEI	DPI	MEDIA
AVERAGE PERSONAL SKILLS	5.49	5.00	5.34	4.39	5.06
AVERAGE INTERPERSONAL SKILLS	5.63	5.00	5.74	4.44	5.20
AVERAGE GROUP SKILLS	5.78	4.71	5.75	5.58	5.45
OVERALL AVERAGE	5.59	4.95	5.54	4.61	5.17

Table 6 Concentrated self-assessment of academic directors
Source: Own elaboration, based on the results of the academic managers' self-assessment survey

Relationship between the perception of subordinates and the self-perception of academic managers

The survey consists of 85 items, with 6 levels of performance on a Likert scale, making a maximum possible score of 510 points. The first 40 items assess personal management skills and give a maximum possible score of 240 points; the next 27 items assess the level of development of interpersonal management skills and have a maximum possible score of 162 points and the last 18 items assess group management skills, with a maximum possible score of 108 points.

Tables 7, 8 and 9 present the total results of the surveys, both of the self-evaluation of the academic directors and of the evaluation of their subordinates, in which they are broken down by each group of management skills (personal, interpersonal and group). The results obtained are acceptable in the first two skill groups and high in the self-assessment of group skills.

In all three skill groups the correlation is positive, which means that the higher the manager's self-assessment, the higher the subordinates' perception of the development of their academic director's skills. However, the correlation is more significant in the interpersonal skills group.

ACADEMIC DIVISION	PERSONAL SKILLS	
	Self-assessment	Subordinate assessment
DEA	219	198
DTIC	200	191
DEI	219	202
DPI	176	196
Average	203.5	197
Maximum value	240	240
Likert scale	ACCEPTABLE	ACCEPTABLE
Correlation	0.473812715	

Table 7 Correlation of personal skills.

Source: Own elaboration based on the results of the survey of managers and subordinates.

ACADEMIC DIVISION	PERSONAL SKILLS	
	Self-assessment	Subordinate assessment
DEA	152	136.0
DTIC	135	130.2
DEI	155	143.7
DPI	120	126.8
Average	140.5	134.2
Maximum value	162	162.0
Likert scale	ACCEPTABLE	ACCEPTABLE
Correlation	0.919757484	

Table 8 Correlation of interpersonal skills.

Source: Own elaboration based on the results of the survey to managers and subordinates

ACADEMIC DIVISION	GROUP SKILLS	
	Self-assessment	Subordinate assessment
DEA	104	93
DTIC	85	88
DEI	104	94
DPI	101	86
Average	98.5	90
Maximum value	108	108
Likert scale	ALTO	ACCEPTABLE
Correlation	0.514410769	

Table 9 Correlation of group skills

Source: Own elaboration based on the results of the survey to managers and subordinates.

Conclusions

The general objective of this research was to identify the essential management skills for efficiently and effectively leading the educational institution under study, and to measure their level of development through the evaluation of the perception of a representative sample of subordinates (teaching and administrative staff) in each academic division and the self-evaluation of the academic directors themselves. The instruments used were the structured and personal interview with the academic directors and the application of two surveys through Google forms.

The research topic is very relevant, as it has been proven that management skills contribute to the generation of optimal, functional and productive work climates, which generate high levels of productivity, commitment and a sense of belonging to the organisation; furthermore, these skills can be developed, i.e. they can be perfected, but to strengthen them, a diagnosis of their current level of development must be made. Identifying the essential management skills to effectively and efficiently lead a HEI is of utmost importance, since future managers and/or leaders are trained in them; in addition to the fact that the decisions and actions taken by managers have a direct effect on society and companies. The identification of these essential management skills serves as a reference for other HEIs, and their strengthening has a favourable impact on the educational service offered.

The following conclusions can be drawn from the results:

1. The essential management skills are the motivation of others, effective communication, analytical and creative problem solving, conflict management, time management, strategic planning and management, team building, adaptation to change, resilience, empowerment and delegation, emotional intelligence, participative leadership, management and decision-making capacity, skills in the technical area of educational programmes, and mastery of the frame of reference (regulations, guidelines and operating procedures).
2. It is recommended to use the systematisation of information to speed up decision-making and to have the ability to be present with students and teachers.
3. It is noted that if the aforementioned management skills are not strengthened, there is a high probability of failing in the management function and not being able to face the most critical challenges.

4. From the analysis of the perception of the subordinates, it is concluded that the level of performance is very similar in the three groups of management skills (personal, interpersonal and group). In none of the 10 subcategories is the level of performance perceived as ideal (6), but there is an acceptable level of performance (5). In all three groups of managerial skills, managers in the DEI and DEA divisions scored the highest and managers in the DPI and DTIC divisions scored the lowest. The best performing subcategories are: developing self-awareness, leading, coaching and supportive communication, and empowering and delegating. The lowest scoring subcategories are: managing personal stress, gaining power and influence, motivating others and managing personal stress.
5. From the analysis of the academic managers' self-assessment it was identified that personal stress management and leadership towards positive change need to be strengthened. The academic managers with the highest self-assessment are those in the DEA and DEI division, which is consistent with the assessment of the subordinates.
6. When analysing the results of both the self-assessment and the subordinates' assessment together, it is concluded that the level of development of the managerial skills is acceptable and the only category that was perceived as having a high level of development is group skills, from the perspective of the academic managers. In all three groups of managerial skills the correlation is positive, which means that the higher the manager's self-assessment, the higher the subordinates' perception of the development of their academic manager's skills. However, the correlation is most significant in the interpersonal skills group.

References

- Ascón, J. E., García, M., y Lajara, A. (2019). Pirámide para el desarrollo de habilidades directivas en las instituciones de educación superior (IES). *Revista Cubana de Educación Superior*, 38(3), 17-26. e5. Epub 01 de diciembre de 2019. Recuperado en 13 de julio de 2022, de http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0257-43142019000300005&lng=es&tlng=es.
- Cañeque, M. (2017). *El nuevo liderazgo*. Buenos Aires, Ediciones Granica. Recuperado en 18 de julio de 2022, de <https://elibro.net/es/ereader/unid/114186?page=14>.
- Daft, R. (2007). *Teoría y diseño organizacional* (9a ed.). México: Thomson.
- Davis, K. y Newstrom, J. (1995). *Comportamiento humano en el trabajo. Comportamiento organizacional*. Octava Edición. México: Mc Graw Hill.
- García, J. y Brás Dos Santos, J. (2020) *Habilidades directivas*. Ediciones Pirámide.
- Lechuga, E. (2007). *El perfil del director de alto rendimiento (D.A.R.)*. Grupo editorial ISEF. México
- Madrigal, B. (2009). *Habilidades directivas*. Mc Graw Hill.
- Moreno, J. (2022). Habilidades directivas y cambio organizacional en tiempos de Covid-19. *Revista internacional de investigación en ciencias sociales*, 18(1), 91-106. Epub June 00, 2022. <https://doi.org/10.18004/riics.2022.junio.91>
- Nahoul, M. (2020). Las habilidades directivas como factor de influencia en el clima organizacional de una institución de educación superior en Xalapa, Ver. *Universita Ciencia*, 9 (25), 73-94. Recuperado el 25 de julio de 2022. <https://doi.org/10.5281/zenodo.6617656>
- Naranjo, M. (2016). *Manual de habilidades directivas y liderazgo: formación para el empleo*. Madrid, Spain: Editorial CEP, S.L. Recuperado de <https://elibro.net/es/ereader/unid/50980?>

MARTÍ-REYES, Mireya & CERVERA-DELGADO, Cirila. Reflecting between evaluation and teaching practice. Re-visions and challenges. *Journal University Management*. 2021

Ortega, A. O. (2015). *Inteligencia directiva: aplicaciones prácticas en la función de dirección organizacional*. Grupo Editorial Patria. Recuperado de <https://elibro.net/es/ereader/unid/39359?page=45>

Payeras J. y Ronco, E. (2002). *El directivo, el cambio, y los equipos de alto rendimiento*. Prentice Hall, España

Pérez, G., Barroso, F., Escalante, J. y Eliseo, H. (2008). Medición de habilidades directivas en los Institutos tecnológicos del sureste de México. Avances de investigación. Revista *Panorama Administrativo*, 3(5), 193-234. Recuperado de <https://biblat.unam.mx/hevila/Panoramaadministrativo/2008/no5/8.pdf>

Provencio, E. (2020). La Gran Disrupción 2020. *Brújula Ciudadana* (117), Recuperado de <https://www.revistabrujula.org/b-117-1-la-gran-disrupcion-2020>

Whetten, D. y Cameron, K. (2011). *Desarrollo de habilidades directivas*. Pearson Educación.