THE ACCOMPANYING AND MENTORING PROCESS FOR YOUNG ENGINEERS

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ABSTRACT

It is very important to accompany young people who start their engineering practice in a company. The presence of an experienced and appreciative mentor, who gives a good orientation to the young persons, facilitates the development, not only of their lives as employees, but, potentially, their entire life as professionals and human beings. Valuable mentoring leads to the creation of spaces of trust that open the mind of the young engineer towards learning and acceptance of experiences and criteria. In this way, the mentor can transmit wisdom, motivation, visions and values, while, at the same time, managing doubts, concerns and expanding perspectives. The author has a long experience in these mentoring processes and presents here several concepts related to it. The human potential is the basis of the process, described, fundamentally, in terms of communications. Criteria of success are proposed and considerations on the environment that facilitates and stimulates achievements. The difficulties and the way of overcoming them are examined, with emphasis on focusing the process with a long-term vision and with values, adequately defining the work areas to be developed in the accompaniment process. The concept of personal talent mining and of mentoring as an art is presented, as a basis for the methodology to carry on a good mentoring process.

KEYWORDS: Tutoring, Training, Values, Methodology, Human mining, Accompaniment, Mentoring.

INTRODUCTION:

In most companies, the training of human talent should be extremely important, much more than what is normally considered. Even in the current environment in which many companies have invested huge amounts of money in human resources, there are short-term and of little commitment, it is convenient not to be fooled by immediacy, opportunism and apparent practicality. Companies and people are an integral part of the great social conglomerate and have very important missions to maintain coherence, harmony, transparency in their relations and the community fabric. It is in society’s interest that people who enter the work spaces, feel motivated and capable of interpreting their work as a great undertaking that gives rise to satisfactions, achievements and personal and collective happiness. Frequently, however, the social signals are confusing and it can happen that people start working without taking into account the potentials involved, assuming their work as a mere occupation subject to procedures and little related to their integrity as valuable and unlimited humans. It is here where good tutors and mentors, enlightened with wide and rich experiences, well structured with knowledge and responsibility, motivated by their desires to serve and to contribute socially, can help the new professional. In the long experience of the author as a university professor, director of research, engineering project director and responsible for the training of dozens of young engineers, it has been possible to structure a vision and a conceptual body around the subject of mentoring young professionals, especially engineers. This is presented here for discussion and reflection both by the people who manage human resources, as well as by the tutors and mentors who are faced with supporting tasks and by the young professionals themselves, with the confidence that these are valuable concepts and methodologies.

Although this issue has been frequently discussed in the literature, Riskin et al. (2005), the approach presented here is a novel one, as it focuses on the accompaniment of young engineers with great emphasis on the concept of human potential and in the construction of the social fabric and of mentoring as an art. It is very applicable to developing societies that are shaping their long-term visions in the midst of great difficulties and lack of resources, which makes it necessary to guide and motivate people very well.

Objectives of the accompanying and training programs for young professionals:

One of the main objectives of these programs is to share the vision of the companies in which the young professional is going to participate, particularly in the case of the work of engineers. Many of them are going to play a part in the development of projects, a kind of work no easily defined in procedural terms, since it involves high doses of creativity, imagination, projection and relationship capacity and a strong sense of commitment. When engineers manage to develop a project-oriented vision, the company is in turn ensuring its long-term vision and projection. The main characteristic of the project approach and vision is that the work is not left initiated, they are finished.

Another fundamental objective is the strengthening of the business teams. People are often introverted and timid, especially when they are young and starting their careers. If young professionals are tutored to feel that they are members of a work team, identified with the feelings and intimacies of projects and of activities, personal barriers are overcome and relationships are facilitated. In this, mentoring acts as a contact and relational element, strengthening the young professional’s self-esteem and confidence.

Another aspect is the transmission of values. Mentors embody in many aspects the values of the organization. They have developed them in their own lives and activities; feel them as realities, being proud about them and wanting to share them.

Another element is the transmission of the sense of commitment associated with long-term visions, with a predisposition toward trust and with an attitude of openness and listening on the part of the young professional, who approaches the mentors with the feeling that they have valuable knowledge and the intention to share it, to help strengthen the new professional. Ultimately, what is wanted is for the young professional’s mind to open up to spaces of trust, to instances of learning, to the possibilities of acquiring and receiving experiences and criteria.

Every person who approaches an unknown world is full of concerns that must be addressed, communicating visions, alternatives, methods and helping to broaden the perspectives. Mentors have passed, with elegance sometimes, with difficulties and clumsiness in others times, for those moments of restlessness and doubts and so, can facilitate these human processes, until there are personal transformations, ultimately achieving that the new professionals not only share the vision of the business, but also contribute to make them better, more human and more comprehensive. The spirit of youth and novelty in an organization should be welcome and it is important that young people feel power and capacity for creative participation.

A tutoring program must have values that can be pointed out, felt, communicated. The mentor must feel the strength of the organization and be able to share it, transmitting commitment, trust, openness and listening, knowledge, ethics and coherence, sense of compliance, appreciation and respect for people and all those related to the organization; persistence, presence, sense of achievement, good communications. Transmitting these elements is facilitated expounding life examples, with cases, with analogies, with conversations, with language and accompaniment.

The greatest goal, in any case, is to contribute to the personal transformation and to the achievement of excellence in the young professional.

The potential of people and organizations: the basis for effective and valuable accompanying and mentoring:

The potential can be defined as the generating element, as the matrix that unleashes new realities, as the fundamental basis of relationships and life. In essence, the potential in organizations and in people has a lot to do with the ideas and beliefs that they have about themselves. It could be said that having a conscious self-referring belief system unleashes the potential or limits it. Hence the importance of defining the personal and business world, of describing it, in a generous and broad manner, lacking limitations as much as possible. A young person can enter the organization full of fears and anxieties, in an attitude of defense and distrust, or can bring bold and powerful visions. Enter the mentors here, contrib-
The starting point, the origin, is in this way established. It is necessary to propose broad, open definitions, looking at things from different viewpoints, enriching visions and possibilities. Three aspects must be addressed when establishing definitions: responsibility, a sense of appreciation (a loving perspective) and the ability to look at things from many points of view, without being deceived by judgments and prejudices. Posada (2006), Palmer (1997)

The honest and transparent conversations between the expert mentor and the young learning professional are the crucible in which the potential is expanded and where a joyful sense of commitment, responsibility and service solidifies. From the potential, one has the tools to project the new business fabric, enriched with the new professionals, full of hopes, hopes and motivations, Fulmer et al. (2009)

The mentoring process: First of all, a process of good communications and attention management:

Here the essence is the transmission of values, of experiences, of feelings, of positive emotions, of possibilities. The elements of good communication are active listening, recognition, the production of added value, emphasizing those benefits and fitting among the new generations and the logical and practical consequences of actions and attitudes, focusing on the productive development of potentials, that is, what could be called human mining.

Good communications have a lot to do with the approximations between people based on the concept of feeling, that is, empathy. The mentors can do a good job with the practice of feeling, that is, exercising the concept of putting themselves in the place of the young professionals, feeling what they feel, approaching their person and experiences, empathically identifying with them. This facilitates communications and opening. In turn, the mentors can train the young person in good communications, especially in what has to do with active listening, as it happens, frequently, that people do not pay attention, occupied in their own thoughts, prejudices and considerations.

The conversations between the two, mentor and protégée, are the spaces to cultivate these skills and to establish empathy. The pretext for having conversations is the development of various projects that the mentor uses to facilitate the training. Such projects should lead to added values for the young person, for the tutor and for the organization. In general, the tutor raises them, originates and directs them, assigning tasks, establishing objectives, activities and progress controls. However, the young persons can also propose them and it is desirable that they fit their interests, their training.

The completion of progress reports and final reports is an excellent communication tool, through which the young protégées ask themselves (and answer) three questions: What did they want to do? What was done? And what really happened? Palmer (1997). Questioning these through reports helps to develop the descriptive skills of the young person, to facilitate the communication and teachings of the mentor. What it is desired, is to develop the observation capacity of young people so that they are able to appreciate three elements in the reality they are observing and dealing with: what is seen; what is hidden and what could be. That is, observation capabilities; to ask questions, to investigate and discover; and the capacities to create and to establish new realities and to elaborate proposals, to innovate and to draw their own conclusions.

In view of the modern tendencies for people to simply copy the already existing answers and to base themselves on the criteria of others, the mentor helps to awaken personal criteria, to propose alternatives, to break schemes, to contribute with their own concepts and schemes. In this sense, the mentors must give examples; cite cases, taken from their own experience and from the business experience. They must be storytellers who attract attention.

Attention is the essential energy that unleashes the potential, the energy of being, the creative energy. Palmer (1997). Mentors become teachers of attention, through the elegant and affective handling of their own attention, they teach the young professionals to reach out to objects, discovering in them values and teachings of the mentor. What is desired, is to develop the observation capacity of young people so that they can appreciate three elements in the reality they are observing and dealing with: what is seen; what is hidden and what could be. That is, observation capabilities; to ask questions, to investigate and discover; and the capacities to create and to establish new realities and to elaborate proposals, to innovate and to draw their own conclusions.

Success: It has to do with persistence and a sense of commitment and strategic capacity:

The achievement of the objectives is success, and as mentioned, the greatest of them is the achievement of the transformation and change of the young professionals, contributing to being subjects aware of their own potentials and talents and of the ways in which they can put them to work in the organization.

Ultimately, the success of the mentoring activities will be measured by the organization according to some categories that are challenging in the short term, such as innovations and economical gains resulting from these processes. Then, it is important to ensure that the company, the mentor and the young professional have long-term visions, which allow them to understand that, in reality, it is through continuity and commitment that innovations are developed, reaching and enjoying the changes and finding the gains and benefit from the projects and activities that are undertaken.

In any case, there is always the possibility of success in the short term, based on the experience of the mentor, on the type of spaces allowed by the organization and on the commitment of the young professionals, who excited and enchanted, give themselves to the project until surprising and unexpected aspects and gains arise.

This should always be a possibility of the mentoring processes. Such unexpected results of high quality and relevance could be called stunning strokes and constituent jewels that embellish the process and that will leave a mark on the organization, the mentor and the young professional. Success is facilitated by a clever and strategic vision of the future, supported by teamwork, such as the one exemplified by the mentor-protégée relationship.

The environment: The creation of an atmosphere of cheerful satisfaction and responsibility:

The environmental elements that facilitate the process have to do with establishing a two-way relationship of teaching and learning, which generates a sense of evolution and growth not only in the young, but also in the mentor. Feeling the emotions of change, of life, of complexity; feeling power, tranquility and autonomy. It is necessary to exalt and celebrate those sensations, through gestures, words, annotations, proposals, recognitions, declarations. It is necessary to accompany their presence and reinforce them with viewpoints and with alternatives, to open possibilities and to generate optimism and a sense of achievement.

The environment is to be relational. Emphasizing that social and human progress is based on leadership, on service, on added value, on things having functionality; on elements that can be described, enjoyed and felt as close and as personal.

In the end, the mentors try to create a school, with the young professional currently being accompanied, and with the group of all their previous and future disciples. It is worth considering a system and a continuity in the style of Socrates, Plato and Aristotle, those mythical and ideal characters; wise people who contributed to the teaching and learning system with elements of inspiration, dialogues, stories, writings and reflections; and who developed treatments and methods. It is a school dedicated to the generation of value: knowledge, deserved privileges, to be enjoyed, competences, recognitions, celebrations, moments, values, visions, projections, cunning strokes, documents, knowing each other.

Difficulties will present, it is a process between human beings:

There are several elements that help identify when the process is threatened, being important to inquire about the causes, to correct them at the root and to solve and mitigate their impacts.

Discouragement has to do with energy aspects. It can be addressed with motivation, establishing a good atmosphere, with long-term visions. Also with proposing alternatives and new projects, fostering creativity, encouragement and empathy. The latter, based on empathic feeling, is excellent for creating new spaces that give renewed attention and encouragement to situations.

Skepticism and cynicism tend to be almost natural attitudes in a world dominated by consumerism and by short-term visions, where there are many examples of corruption and malice. In this sense, the mentors must contribute with reflections on situations, teaching to look at them from many points of view, to broaden the view, seeking objective wisdom and balance. Educating on the concepts of flow, change, balance and balance. But, above all, educating and setting examples from an attentive and appreciative viewpoint, assuming the position of one that observes with affection, without judging.

Instabilities are going to appear, since there are many elements that call the attention of the young professionals, who are still in training, without having well stabilized, yet, their priorities, sometimes dominated by fears and insecurities. Here the mentor, with a creative vision animated by imagination, intuition, the ability to engage responsibly and to observe with appreciation, presents various life lessons that show the young the advantages of staying attentive until the end of the process, without being themselves too startled by limiting or baffling circumstances.

Destructive criticism and lack of appreciation are easily learned, given the morbid taste usually experienced with fruition when others fail, when processes fail. In this sense, the mentors bring their sense of appreciation, their experience and capacity for friendship, compassion and admiration. All these are refined products of a committed life and can be shared, to raise the level of appreciation for the organization and for the projects.

Just as there are gains and achievements, there will be losses and failures. In this, successful mentors have much to contribute, sharing with the young professionals their own stories related to difficulties and failures, how they were overcome and what life lessons were learned from them.

The worst difficulties can arise if there is dishonesty in the process, something that is stimulated when there is a lack of transparency and responsibility, which is reflected in secrets and hidden agendas in communications. Accusations and guilt should be avoided, since they lead to the perverse triangle of victim-victimizer-savior, which destroys good communications.

Attention and values:
It is necessary to work based on attention, which, as has been indicated, is the creative energy that unleashes the human and organizational potentials. Attention must be of high quality: Responsible, appreciative and affectionate, wise and devoid of fears.

Value campaigns are a must in the mentor-protégé relationship, consisting and repeating, especially through example and through practice based on the projects, on the fundamental principles that sustain any worthy activity and on the relationships that create values, integrity and humanism.

Looking at the future and to the long term: the objective is facilitate that there are experts in the organization

The elements favored with these visions are the company, the world and the people. It is necessary to help the young professionals to visualize themselves as persons who will contribute with various productive elements to the progress of the organization. Naturally, the most important one is their own work. Nevertheless, there are many aspects that can highlight and contribute, adding refined values, greater humanism, profitability and prestige.

Elements such as the generation of intellectual property and knowledge; publications; talks and presentations; the ability to give concepts and practice, consulting with authority; the exercise of high-level language and relationships.

Work areas in the mentoring process: Define the fields in a creative and challenging way:
Among the elements that facilitate these definitions, are having a portfolio or list of areas and projects; presenting and sharing visions and mission for each possible project; presenting the options creatively, facilitating that there are different alternatives.

Projects that involve different perspectives, innovation, exploration, possibilities of applicability will always be attractive. Mentors must contribute bringing to the table practical visions, but also profound ones, that balance the short, medium and long-term perspective.

In general, the main transversal themes will be attractive: sustainability; humanism and integral personal development; energy; the technology; science, methodology. To be able to correctly focus on the young professional and on the process, it is convenient to consider the epistemology of the situations, that is, the importance of three essential elements: subject, method and object (nouns, verbs and things and circumstances).

Tutoring as a human mining process: The art of enjoying the generation of value:
When contemplating this aspect, various elements of management and administration of the process arise. The importance that the work developed generates joy and optimism; the importance of maintaining a managerial vision, associated with the idea that there is a challenge and a responsibility to extract from the process values and products that transcend the mentor-disciple setup.

Feedback is vital, as it is having meetings and work sessions that allow sharing, stimulating presentations, reports and descriptions of what is being done. Keeping in mind that, in addition to the mentors and the protégées, there are other interested parties in the projects, including clients, co-workers, other advisors, and the very environment of the company, its rules, requirements and limitations. Converting ideas into valuable products is a task for many people.

For a company to sell goods and services with profitably is essential and every process must contribute in this regard. Therefore, it is advisable that the young professional be trained during the mentoring, as much as possible, in cost-benefit visions; in the nature of flows, not only cash, but also knowledge flows and experience flows. The training should contribute to the knowledge of various balance sheets, capital issues and investments; financing, growth, and projections. It is important to appreciate that the market and its laws give the final contribution to the activities.

Mentoring is a process that must have methods, but it is also an art of open nature:
As a basic element to establish an advantageous method, the idea of starting from the concept of the blank sheet is convenient. It starts with its empty spaces, to symbolize that it is open to all possibilities.

The process continues by placing a question in the center of the blank sheet. This is a symbol of the emergence of intuitive creativity. Resulting from the central question, the mentor-protégé set generates responses and fills out the empty spaces of the page, placing the answers by means of key words, images and phrases, around the center. This involves imagination, intuition, creativity and observation. There should be pauses, so that the mechanisms of rationality and constructive emotions also intervene, leaving aside fears, pains, disputes and guilt, which disappear as a result of creative responses.

The idea is to encourage a process that resembles, at least in some of the sessions and work meetings, an open book that filled and illuminated by the mentor and the young professional. It can and should be complemented with representative, symbolic, poetic, musical and figurative elements.

An example of the above occurs when the mentor-teacher dares to teach with mysterious and poetic questions, like the ones used in koans. Posada (2011)

What message does the water bring in its incessant flow?
How has life been created and what is that makes sense?
Why building order; if disorder is a natural thing?
How to give life and wisdom to human projects?
How to make projects that transcend and become works of art?

Another example is the use of short poems: The mentor teaches poetically, composes and invites to compose small haiku-like poems, of a few lines that condense the wisdom of the process:

The teacher speaks
The disciple listens and believes
The two learn
The teacher challenges with a smile creating resonances
so that there is responsibility and joy.

The teacher-mentor outlines with figures and graphics, presents schemes and drawings and symbols, since pictures and images are worth a lot.

The teacher-mentors present reflections and considerations about admirable human characters, which for them, have been great examples of life: Leonardo da Vinci, Humboldt

The teacher-mentor stimulates the idea of mental and experimental laboratories, as did Einstein and Huberto Matumana; as seen in the works of Newton and Galileo.

CONCLUSIONS:
The mentoring work is presented as an excellent way of training the young engineers and professionals who come to work at a company. In order to carry out these processes, it is important that the companies encourage their experienced employees to participate, associating them with the young practitioners and newly hired employees.

REFERENCES:

5. Fulmer, R. Stumpf, S. and Bleak J. (2009). The strategic development of high potential employees to participate, associating them with the young practitioners and newly hired employees.
