

Performance evaluation for the achievement of labor competences in the modular curriculum of professional technical high school

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21st century education: *They told it to me and I forgot it, I saw it and I understood it, I did it and I learned it” Confucius*

Keywords: social, knowledge, education, students

Introduction

By carrying out an analysis of constructivism, considering the various variables and points of view from a philosophical, social and psychological conception, it allows us to have a more complete vision of this position and its benefits to achieve in our students a quality education with real learning significant.

Being clear that all constructive learning supposes a construction that is carried out through a mental process that ends with the acquisition of new knowledge, we can understand that the previous knowledge that the student possesses will be key to the construction of this new knowledge.

Through this work it is intended to carry out an analysis of the different situations where constructivism has been linked to the educational Reform in Chile, in what refers to the psychological and didactic aspects; However, it is worth noting the importance and transcendence of the constructivist theoretical and educational position that cannot be reduced to its incidence in said reform process, basically, because these tend to imply numerous relationships with educational policies that, logically, refer to problems of the type political and exceed the educational didactic scope.

Chapter I: Formulation of the improvement or intervention plan

The constructivism in the educational reform and the associated factors have not allowed the achievement of significant learning. Is it a problem of curricular didactics?

According to studies carried out constantly by the World Bank and through the application of international measurements such as the PISA test, applied by the OECD, yielded results that deserve "URGENT" review, due to the low level of learning achieved by our students with respect to the 32 countries participating in this measurement.

Based on this data and other investigations, I can point out that today the big problem is the resistance of some teachers in the face of the changes that have been operating with the implementation of the educational reform, in whose application new demands appear, both in the aspects the curricular type and educational management, as pedagogical; Observing the existence of authoritarian traits in the school relations that give continuity to traditional or disciplinary forms that are intended to be overcome with the educational reform.

The disconnection that exists between the purpose of the Educational Reform and the transfer of knowledge by educational agents to students is reflected in the traditional paradigm of instruction on constructivism in the classroom.

We know that the Educational Reform process is outlined with the intention of providing students with the fundamental knowledge expressed in a quality education that allows them to acquire and develop cognitive, moral, and social skills, that is, to develop the skills essential, personal dispositions, fundamental abilities, cognitive skills and basic knowledge, which progressively transform the child into a competent person to fend for himself and act honestly, effectively and accordingly in various domains; Appropriate the codes of culture and develop proactively in the midst of the tensions of contemporary society.

In order to satisfy these demands, teachers must review and rethink the conceptions regarding learning-learning and teaching to learn, and not forget that education does not have a purely intellectual mission, since its objective is to prepare people to act in situations of the real life; to become competent in carrying out the normal practices of a community of people who are already competent, in order to be able to interact and coordinate with them, to acquire the predispositions and values that allow them to integrate into a shared order, and so on. Participate in culture as a subject fully responsible for their freedom.¹

Within a range of explanatory trends, constructivism stands out as one of the trends that has managed to establish spaces in research and intervention in education, due to its systematicity and its results in the area of learning, unlike other approaches, which propose close explanations. Only to the object of study and others that only go to the knowing subject as the ultimate reason for learning, constructivism proposes the interaction of both factors in the social process of the construction of meaningful Learning, that is, learning by doing.

What is constructivism?

Among the many definitions of this concept, we find one that refers to: "A set of theoretical elaborations, conceptions, interpretations and practices that, along with having a certain agreement with each other, also have a range of perspectives, interpretations and practices that are diverse enough to be considered as one".

With the above, it can be understood that constructivism is a means by which both the theoretical and practical aspects of certain objects of study (in this case with regard to the field of learning and obtaining knowledge) can interrelate and contrast in such a way that there is not only a broad and inclusive perspective of said object of study, but also that the different knowledge prevent the conceptions from being radicalized, thereby enriching the research around this study practice.

Chapter 2: Justification

According to the current Chilean Educational Reform, the teacher in order to achieve the fundamental objectives and the mandatory minimum contents in young people, must act as a learning mediator, which translates into a new form of pedagogical work, which has as its center the activity of the students. Students, their characteristics, their knowledge and previous experiences; Therefore, he must be knowledgeable about multiple intelligences, be aware of the evolutionary needs of each of his students, know the stimuli of their contexts and finally contextualize the activities. In addition, he must know that knowledge is not the result of a mere copy of the pre-existing reality, but that this is a dynamic and pragmatic process, since it interacts with the information in order to acquire a mental interpretation or reinterpretation; With this, more elaborate models of explanation are built.²

Perhaps it is the way in which the meaning that the students acquire of certain information that they know is explained and that, according to their own analysis processes and capacity, allow them to change their schemes, "help" them to acquire new knowledge and adapt them to the pre-existing reality.

The interaction of the subject with his environment, and the own construction that is formed in the interaction between both; it is what maintains constructivism. When we talk about the

constructivist current, we find that, in it, the student is focused on a more participative, dynamic, and practical role, to obtain learning, skills and aptitudes; It is clear that for this, the interaction of the subject is necessary, with his social, historical and cultural context.

Goals:

- 1) *Analyze the Learning Theory: Constructivism, from the point of view of its rationality and consistency with the teaching and learning processes sustained within the framework of the Educational Reform.*
- 2) *Teachers identify Constructivism as a factor associated with learning in the Chilean Educational Reform.*

Chapter 3: Reference framework

There are many theories and currents of thought that come together in a constructivist vision, such as Piagetana, Gestalt, Wallon, Vygotsky, Bruner, Dewey, Gagné, Ausubel, Novak, among others. It is therefore that we can see that constructivism is enriched by a set of epistemological, psychological, educational and sociocultural visions.

Mainly and according to Piaget's Theory, emphasis should be placed on the relationship between psychological development and the learning process; whose acquisition consists of taking elements or stimuli from the environment, assimilating them, accommodating them and relating them to existing structures, to later use them as sources of new behaviors that will allow the individual to apply what they have learned.

On the other hand, Ausubel emphasizes that the key element of school education is meaningful learning, prioritizing the objective of learning to learn over the objective of skills or content. Talking about significant learning is equivalent to highlighting the construction of meanings as a central element of the teaching-learning process. Man is a being capable of building and keeping his own knowledge. He is a social being. Vygotsky contributes by pointing out the importance of language, from the signs, which are structured for communication purposes in regards to their order, rules and norms. This structuring intervenes in the relationship established by human beings and signs, that is, in the attribution of meanings. Linguistic theories of communication, have tried to explain how signs trigger meanings or mental images in people. According to Vygotsky, in the cultural development of the child, every function appears twice: first, at the social level, and later, at the individual level; first between people, and then within the child himself; Therefore, it can be deduced that Vygotsky emphasizes the social environment as a fundamental element in the construction of the young person's knowledge. This element "social environment" intervenes in such a way that according to Bruner the young person learns by discovery where intellectual development depends on this contact with others and/or with himself, for this reason the integration of the family to the school as an entity is vital. Participant in the learning process. In the cultural development of the child, every function appears twice: first, at the social level, and later, at the individual level; first between people, and then within the child himself; Therefore, it can be deduced that Vygotsky emphasizes the social environment as a fundamental element in the construction of the young person's knowledge. This element "social environment" intervenes in

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While Gagné emphasizes fulfilling some functions in teaching so that true learning takes place, such as a change in the cognitive structure, which presents several facets, the most important being:

- 1) The difference of unstructured areas;
- 2) Generalization from one area to another;
- 3) The restructuring of the direction, or psychological significance of already existing structures.

Let's not forget that a learning situation is motivating when it is intrinsically related to something of interest or significance to the person; when there are positive valences, and the situation allows you to dominate your environment.

It is important to emphasize once again that the language of the ongoing Educational Reform insists on the construction of meaningful learning by the student.

Another important aspect is raised by Feuerstein, who considers that one of the great problems of education is not promoting methodologies that allow children and young people to develop behaviors to think, develop, evaluate and reflect, thus not allowing significant learning to be achieved.

The aforementioned approaches directly support the educational policies of the Ministry of Education, which are oriented towards the achievement of objectives of improving the quality and equity of educational opportunities.

It is also important to rescue some both Psychological and Philosophical conceptions of Constructivism.

Psychological conception

Constructivism is intended for the student to build their own learning, therefore, according to TAMA (1986) the teacher in his role as mediator must support the student to:

- 1) Teaching him to think: Developing in him a set of cognitive skills that allow him to optimize his reasoning processes.
- 2) Teaching about thinking: Encouraging students to become aware of their own mental processes and strategies (metacognition) in order to control and modify them (autonomy), improving performance and effectiveness in learning.
- 3) Teaching on the basis of thinking: It means incorporating learning objectives related to cognitive skills, within the school curriculum.

In the student, the metacognition process should be favored; Based on this, some tasks taken from the book "Learning to Think and Thinking to Learn" by TORRE-PUENTE (1992) are presented, where it is visually reflected how to promote this metacognition in the student: TASK: Purpose, Characteristics, Knowledge I have on the subject, What is the best strategy (phases and techniques), Moments, Process Assessment, Errors, Causes, Correct, Apply new strategies, etc.

Conception is philosophical

Constructivism states that our world is a human world, the product of human interaction with the natural and social stimuli that we have been able to process from our "mental operations" (Piaget).

This constructivist philosophical position implies that human knowledge is not received passively from the world or from anyone, but is actively processed and constructed. In addition, the cognitive function is at the service of life, it is an adaptive function, and therefore the Knowledge allows the person to organize their experiential and experiential world.

Constructivist teaching considers that human learning is always an internal construction. For constructivism, objectivity itself, separated from man, does not make sense, since all knowledge is an interpretation, a mental construction, from which it is impossible to isolate the researcher from what is investigated. Learning is always an internal and subjective reconstruction.

Getting to understand the problem of the construction of knowledge has been the subject of philosophical concern since man began to reflect on himself. It is argued that the human being is essentially a product of his ability to acquire knowledge that has allowed him to anticipate, explain and control many things.

We remember that the Educational Reform through its approach states that the student learns by doing, but for this it is necessary for the teacher to change his didactics for the development of the curriculum.

We constantly hear from students severely criticizing the work of teachers in general, pointing out, among other things: "their classes are stupid", "they always do the same", "they don't motivate", etc., and in Sometimes the students themselves refer to the fact that they do not apply "Didactics"; most of the time understood as that entertaining activity designed on the basis of some technological tool such as the Internet, power point,

video, etc., even among the teachers themselves, similar value judgments are issued, classifying teachers according to their didactic management. However, in order to make a judgment about whether a teacher is didactic or not, we must first delve into understanding what this concept really means.

Of Didactics we can say that "It is a science, a theory, a technique, a method or resource, it is an art, a discipline whose purpose is to plan the contents, plan the classes, plan the evaluations, have didactic resources, know how to transmit knowledge, make classes more enjoyable, develop the capacity of students, monitor learning. Didactics is also related to teaching, learning, instructing, communicating, transmitting knowledge" (Pagés Joan, Teaching to Teach: the didactic training of future teachers).

Chapter 4: Educational improvement plan

Constructivism is one of the currents that has inspired the current Chilean Educational Reform. This conception is based on the fact that students are not empty minds that must be filled with an infinity of conceptual contents, sometimes totally out of context of their reality, but quite the contrary, these active and participatory subjects of learning possess "knowledge previews" that serve to hook the new content and allow you to ascribe meaning to it to some degree. This engagement is not automatic, but the result of an active process by the students, which will allow them to reorganize their own knowledge and enrich it (The active and constructive nature of knowledge; p 2; Adaptation made by the Pedagogical Modernization Commission of the PUCP of the text "What makes students learn?" by Teresa Mauri.⁴

From this perspective, the student participates actively in the construction of knowledge, taking his own reality as a point of reference and starting from this, it can be achieved that he understands in a better way the contents that the teacher gives him.

This is achieved through brainstorming to activate what the student already knows about the subject, thus producing the relationship between what the student already knows (prior knowledge) and what he is going to learn. With this, it is intended that the student achieve significant learning defined as the process according to which new knowledge or information is related to the cognitive structure of the learner in a non-arbitrary and substantive or non-literal way. This interaction with the cognitive structure does not occur considering it as a whole, but with relevant aspects present in it, which are called subsumers or anchoring ideas. The presence of inclusive ideas, concepts or propositions, clear and available in the mind of the learner is what gives meaning to this new content in interaction with it (Moreira, 2000). This definition makes it clear that the student's mind is not blank, but rather has elements that will serve as a link with the new knowledge.

The work of the teacher in this case is not that of an expert scholar who knows the subject of study in depth (What makes students learn?; p. 2; adaptation of the text by Teresa Mauri,⁴ published in constructivism in the classroom), the figure of the teacher according to the Educational Reform is that of a guide- facilitator, which accompanies the student in the construction of relevant knowledge and helps him to enhance his zone of proximal development, which is the distance between the actual level of development and the level of potential development (definition taken from vigotsky), that is, the student has a level of intellectual development that can be enhanced if the appropriate strategies are

used. In conclusion, constructivism poses a great challenge for teachers and students because to put it into practice commitment is required and dedication.

The questions that arise spontaneously are the following: Is constructivism adequately applied in national classrooms? And if not, why is it not done?

The universe of study of this work is based on the student as the first agent of the teaching-learning process and to achieve significant learning in them, I propose that teachers plan according to the following pedagogical principles:

The student is ultimately responsible for his own learning process: It is he who builds knowledge and no one can replace him in that task. The importance given to the student's activity should not be interpreted in the sense of an act of discovery or invention, but in the sense that it is he who learns and, if he does not learn, no one, not even the teacher-facilitator, can do it instead. Teaching is fully mediated by the constructive mental activity of the student.

Do not forget that the student is not only active when manipulating, exploring, discovering or inventing, but also when reading or listening to the explanations of the teacher-facilitator.

The constructive mental activity of the student is applied to contents: that already possess a considerable degree of elaboration, that is to say, that it is the result of a certain process of construction at a social level. Students build or rebuild objects of knowledge that are actually built. The students build the system of the written language, but this system is already elaborated; the students construct the elementary mathematical operations, but these operations are already defined; the students build the concept of historical time, but this concept is part of the existing cultural baggage; students build the norms of social relationship, but these norms are the ones that normally regulate relationships between people.

The fact that the student's constructive activity is applied to pre-existing learning content conditions the role that the teacher-facilitator is called upon to play: Important: The role of the teacher cannot be limited solely to creating the optimal conditions for the student to display a rich and diverse constructive mental activity; He must also try to guide this activity so that the construction of the student progressively approaches what the contents mean and represent as cultural knowledge.

Learning a content implies attributing a meaning to it, building a representation or a "mental model" of it. The construction of knowledge supposes a process of "elaboration" in the sense that the student selects and organizes the information that reaches him through different means, the teacher among others, establishing relationships between them.

In this selection and organization of the information and in the establishment of the relationship there is an element that occupies a privileged place: the pertinent previous knowledge that the student possesses at the moment of beginning the learning.

Teachers have an important role in the construction of meaningful student learning according to the requirements of the educational reform

Mediation is an intervention that the teacher makes to enrich the student's relationship with his environment. When they offer

you a variety of situations, they communicate their meanings, show you ways to proceed, help you understand and act in the environment.

For the teaching-learning process to be effective, the teacher must consider:

Intentionality: clearly communicate and teach what is to be transmitted, producing a state of alertness in the student.

Reciprocity: because when there is a strong communication link between teachers - student, more effective learning occurs.

Transcendence: The teacher should never forget that the student's experience goes beyond a "here and now" situation. The student can anticipate situations, relate experiences, make decisions based on previous experience, and apply knowledge to other problems, without requiring the direct action of the teacher.

Mediation of meaning: This invites teachers to build concepts with students and so they will continue to do so in various situations putting thought and intelligence into action, establishing relationships or developing hypotheses.

Mediation of feelings of competence and achievement: The teacher must ensure in their students a positive disposition for learning and acceptance of new challenges, so they will have confidence that they can do it well. Strengthening their feelings of security and enthusiasm for learning is the foundation on which their self-image is built.

The positive recognition of the achievements and skills that have been put into play to carry out the activity successfully, increases self-esteem, facilitates the feeling of personal achievement and cooperation with others.

Although the teacher must not forget that teaching must be individualized in the sense of allowing each student to work independently and at their own pace, it is necessary that they promote didactic activities to develop collaboration and group work, since this is how they establish better relationships with others, learn more, feel more motivated, increase their self-esteem and learn more effective social skills.

In practice, this social conception of constructivism is applied in cooperative work, and for this and The teacher should apply the following strategies:

- 1) Clearly specify the purposes of the course.
- 2) Make certain decisions on how to place students in the group.
- 3) Clearly explain to students the task and the goal structure to be achieved.
- 4) Monitor the effectiveness of the groups.
- 5) Evaluate the level of achievement of the students and help them discuss, that we also have to collaborate with each other.
- 6) For a group work to be truly cooperative, it has the following characteristics:
- 7) Positive interdependence.
- 8) Face-to-face introduction.
- 9) Individual Responsibility.
- 10) Use of interpersonal skills.
- 11) Group processing.

Conclusions

After carrying out the analysis and identifying constructivism as a factor associated with the Educational Reform, I can conclude that; this educational reform is based on constructivism, since all its actions tend to ensure that students build significant learning, according to the experiences and previous knowledge that they bring.

But even so, the great shortcoming of the Reform is that teachers have not endorsed this current, they must know its principles very well and the importance of constructivism in the processes associated with teaching-learning, because only then will they have a solid foundation. For its implementation, a situation that today rarely occurs in our classrooms by these actors in the educational system.⁵

When we talk about “construction of learning”, we mean that in order to learn, the student must make different cognitive connections that allow him to use mental operations and, using his previous knowledge, build new learning, a process that must be guided by the teacher. (According to the Educational Reform), who should have a mediating role in learning, make the student investigate, discover, compare and share their ideas, but in the classroom it is hardly happening, since the traditional Instructional paradigm continues to predominate.

For an effective action from the point of view of constructivism, the teacher must start from the level of development of the student, always considering their previous experiences, this is achieved by applying an adequate diagnosis, a situation that many teachers do not carry out because they consider it unnecessary, because, they believe that the student knows something (assumed), but does not investigate what.

It is true that constructivism is the current trend that should be applied to the entire curriculum, but according to what has been exposed and personal experience, in practice it is difficult to be totally constructivist, since the realities in schools are varied and there are many factors that influence to fully adhere to this theory, being able to cite as factors: the predominance of instruction over letting the student do, the power and excessive authority on the part of the educator to maintain discipline in the classroom represent authoritarian remnants of the relationship the traditional one that brings effects on learning, the mechanism of externalization of obligations that some teachers resort to in the face of the social construction and the political-economic system, by confronting students with the duty of forming society, criticizing their actions and evasive attitudes in this regard without considering their own participation as teachers of the political system.⁶

To conclude this analysis, I consider the following reflection important: It cannot be established that one paradigm is bad and the other good. Paradigms have responded to specific cultural historical contexts and have developed accordingly. Each one of these models has contributed to the improvement of the teaching-learning process and it cannot be stated emphatically that a certain paradigm has been overcome and has given way to another. If we reflect deeply, we can realize that there are currently educational establishments that are still governed by the positivist or traditional paradigm, while others emphasize the socio-critical or interpretative model, while other establishments focus on the emerging paradigm.

Chapter 5: Performance evaluation for the achievement of labor competences in the modular curriculum of professional technical high school

Summary

The Thesis project that is presented below essentially aims to make a model (instruments) for evaluating the performance of students according to the skills required according to the modular curriculum and the graduation profile of those in the specialty of graphics, in accordance with the Professional Profile.

This model will be composed of three large categories of content: Intellectual Competences, Efficiency Conditions; and General competencies, each of which is made up of a certain number of competencies, which in turn are broken down into Performance and will be prepared by collecting background information through interviews and structured surveys of leading organizations in the educational and business sector of the commune and region, and teachers of the graphics specialty.

Based on the results, the competencies will be classified according to the level of importance of the same to the efficient performance of the students and according to the current level of the demands of each of them in the world of work, which will allow to determine the deepening needs that they should be taken into account for learning in the Lyceum and thus achieve the Graduation and Professional Profile according to the labor reality.

The results of the research will show existing gaps in the Performance for the achievement of the Competencies of the students in the Professional Technical High School, which would lead to the search for methodological strategies that lead to the achievement of the Competences in the modular curriculum; thus allowing the development of instruments to evaluate the performance of students in relation to specific and general labor competencies (required according to the graduation profile), in addition, this standardized evaluation model will have to allow us to measure the level in reading and writing, mathematics, language, etc. basic skills required by the labor market.

We will facilitate the implementation of curricular contents that increase students' ability to undertake, make responsible decisions and analyze problems in a systemic way, and that feed creativity, autonomy and responsibility at work. We will stimulate the existence of educational projects that promote entrepreneurship.⁷

Thematic area

Evaluation of Learning in the Modular Curriculum of Professional Technical High School

Research topic

Evaluation of performance in the Modular Curriculum of Professional Technical High School How to evaluate the general, specific and labor Competences, in the modular curriculum for the achievement of learning?

Selection and approach to the problem

Problem formulation

The lack of instruments that allow us to evaluate the performance of students and thus ensure the achievement of general, specific

and labor competencies and therefore learning. “The proposal presented in this research project is a performance evaluation system of a formative nature that is aimed at improving the quality of education. We will support the integration of technical training in a permanent learning system, in order to raise the quality of academic offerings, increase the enrollment of higher level technicians and promote technical training based on job skills.

Powers of:

General formation

Basic skills

Technological Savvy

(So that?)

(Because?)

Powers of

Formation of work habits.

Mastery of operations and procedures.

(To do.....?)

(How to do it?)

Competent person

Qualified Human Resource for the competitive company

Purpose

In Chile, the technical-professional high school level currently occupies 49% of the student population, a very important place in the Chilean educational system, due to its already repercussions in the work force that requires it so much. That is why efficiency, effectiveness, quality and adaptation to the current requirements of the productive sector is not only a necessity, but an imperative.

In order to verify the above, it is necessary to apply evaluative instruments that measure the performance for the achievement of general, specific and labor competencies.

Specifically, performance evaluation is the process of gathering evidence by one or more means, which implies the review, analysis of the same and the issuance of a judgment by the evaluator, on the evidence, in order to make differences about the general, specific and labor competencies of a student, with three general purposes:

- a) The recognition of the performance that the student has made
- b) The inference of the future performance of the subject in the areas of competence.
- c) Achieve the skills according to the Ideal Graduation Profile for the labor market.

Objectives (General and specific)

General objective

- a) Develop a model to assess student performance in relation to job skills, specific and general that allows reflection to improve learning.

- b) Assess the achievement of performance systematically with relevant, valid and reliable instruments according to pre-established standards within the educational unit, in order to provide the elements that allow adapting the didactic strategies to achieve the objectives.

Specific objectives

- a) Generate a database of work behaviors with the knowledge, skills and abilities corresponding to each level of performance.
- b) Identify the basic generic job skills required in the world of work.
- c) Analyze the implications of the competency-based education approach on curricular development and apply its basic elements in the development of a performance evaluation proposal.
- d) Interpret the learning assessment in a competency-based curriculum.

Research questions

In this research project, we will try to answer the following questions:

Is there an integrated assessment that can be carried out and that reflects the competencies to be assessed according to the modular curriculum?

Why evaluate performance?

What is evaluated?

How are performances evaluated?

Who evaluates the performances?

Justification

At present there is a marked consensus regarding the idea that the failure or success of the entire educational system is based mainly on the quality of the performance of basic, specific and labor competencies, which is why it is necessary for educational organizations to have the appropriate tools for the execution of a control to evaluate the achievement of the performances, being that the evaluation is a fundamental element of the organization of any educational institution. It is intended to guide, to improve the quality of the evaluation instrument of performance that are used in educational establishments.⁸

The conception of the evaluation by competence of “knowing how to do in context” helps, but it does not solve the entire integrality of being. We must think of evaluative models that respond more to our characteristics; It will be more effective if teachers are direct subjects of it and not passive recipients of centralized indicators, where students feel they are participants in their training and progress in the construction of pedagogical and didactic knowledge.

Viability

According to the educational policies of the Ministry of Education and that according to the FTAs with the different economic partners of Chile, the issue of performance evaluation is increasingly visualized, which forces us to improve our evaluation systems or models. Performance for the achievement of basic, specific and labor competencies. .The research project will cover a period of

one semester; between the months of October 2006 - December 2006.

It is important to emphasize that the conditions for the execution of the project, time and human resources are available.

Expected results

The information collected and tabulated will be presented in statistical tables and graphs of each of the questions asked in the surveys with their respective variables and corresponding percentages.

The incidence of these answers on the subject of the investigation will be analyzed, also presenting general summaries, which will allow to visualize the reality of the quality of performance within the educational establishment.

Chapter 6: Theoretical framework

According to the Supreme Decree of Education No. 220, which states “the needs for curricular updating, reorientation and enrichment that derive from accelerated changes in knowledge and in society, and the purpose of offering students some knowledge, skills and attitudes, relevant to their lives as people, citizens and workers, as well as for the economic, social and political development of the country, leads to proposing this new curriculum that alludes to specialized training”, defined in terms of Terminal objectives grouped into graduation profiles (achieved performances) labor competencies.

In the philosophy of the Education Reform, when dealing with the teaching and learning processes, the decision was made in favor of learning. The teaching is given so that the students learn: the objective is to learn. From Initial education, Teaching must be carried out in such a way that the students are the center and the teacher is the mediator of their learning and that in this way the student is directed towards the self-management of their autonomous learning. Nowadays, the scientific-technological culture poses new challenges to knowledge: the diversity of information, the different languages, new contents, new specialties that require subjects capable of establishing significant relationships between their “knowledge” and with the capacity to resign what they have learned, to integrate concepts, to carry out processes of reflection on their own knowledge.⁹

From this perspective, one can speak of quality, with teaching oriented towards the development of skills that enable them to face situations and make decisions with creativity, innovation, exploration of possibilities, alternatives or new theories.

The productive capacity of an individual that is defined and measured in terms of performance in a certain work context, and not only knowledge, abilities, skills and attitudes; these are necessary but not sufficient by themselves for effective performance.

As the globalization processes of the economies are spreading and imposing, the changing world of the economy and work places emphasis on controlling and raising the quality of production and merchandise, which in turn requires increasing productivity. Of the human resources involved. A consequence of the above has been the debate about the mechanisms in which educational institutions form resources, and the need to propose changes in their organization, content and teaching methods.

In this global context, Chile joins and forms part of the large international economic blocs. The need to more effectively relate education to the world of work leads the official sector to promote the implementation of educational options based on the so-called competency models. The official policy materializes when the Labor Certification System is created. Among some approaches it was established that “with the reform of the education and training system, it is intended that the country has qualified human resources that productive transformation, technological innovation and competition in global markets demand”.¹⁰

In our country, the issue of competencies is recent. In other latitudes, the term has a history of several decades, mainly in countries like England, the United States, Germany and Australia. The competencies appear primarily related to the productive processes in companies, particularly in the technological field, where the development of knowledge has been much accelerated; for this reason, there was a need to continuously train the personnel, regardless of the title, diploma or previous work experience. This is the context in which the so-called labor competencies were born, a concept that presents several definitions, among which stands out the one that describes them as the “effective capacity to successfully carry out a fully identified labor activity”.

The main axis of competency-based education is performance, understood as “the concrete expression of the resources that the individual puts into play when carrying out an activity, and that emphasizes the use or management that the subject must make of what he knows, not isolated knowledge, in conditions in which performance is relevant”. From this perspective, what is important is not the possession of certain knowledge, but the use that is made of it. This criterion forces educational institutions to reconsider what they have commonly considered as training. From this point of view, to determine if an individual is competent or not, the real conditions in which the performance makes sense must be taken into account, Mertens quoting Harris, transcribed some characteristics proposed for training programs based on competence; some are cited:

- 1) Competences carefully identified, verified and public knowledge.
- 2) Instruction directed to the development of each competence and an individual evaluation for each performance.

The evaluation takes into account knowledge, attitudes and performance as main sources of evidence.

- 1) Students’ progress in the program is at their own pace.
- 2) Instruction is individualized as much as possible.
- 3) Emphasis placed on results.
- 4) It requires the participation of the workers in the elaboration of the learning strategy.
- 5) Learning experiences are guided by permanent feedback.

In short, the generation of competencies from training programs requires them to initiate changes in their pedagogical strategies, in their curricular approaches and in the traditional role assigned to teachers and students. The use of a wide variety of materials is required. Of learning combined with the orientation of learning towards the solution of problems rather than the repetition of contents. The traditional means of educational administration

based on the group that learns as the basis of the programming of actions and courses is being challenged so that it allows the management Individual assessment of the progress made by students and their easy re-entry into programs that should be modular and open.

Chapter 7: Contextual framework

This research project will be carried out at the Monseñor Guillermo Hartl Educational Complex, in the commune of Pitruquén and in the work environments of the commune and the region.

The high school serves a population of 950 students from rural sectors (60%) and students from the urban sector of the city of Pitruquén (40%), delivering an academic offer with 6 specialties in the Industrial, Technical and Commercial areas.¹¹

The evaluation model prepared will serve as the basis to be applied to any performance measurement for the achievement of competencies in the different specialties offered within the framework of Decree No. 220.

Chapter 8: Methodological design

Paradigm, perspective or approach

This research will be found with two methodological aspects, one with an exploratory approach and the other with an explanatory approach; the first will allow us to familiarize ourselves with the phenomenon under investigation, and could be the starting point of another investigation, while with the second approach we will direct the investigation to the verification of causal hypotheses.

Type of study

This research project is based on a study of an exploratory and interpretive nature and for this the universe will be made up of all the students of the specialty of graphics of the Monseñor Guillermo Hartl Educational Complex, whose participation will be active throughout the investigative process.

Carrying out this research will allow me to become more familiar with the subject and later take it as a basis for more in-depth research within the establishment.

Method

The evaluation of performance for the achievement of competencies, whatever the method to be used, is complex and difficult due to the marked consensus on the idea that the failure or achievements of the entire educational system is based mainly on it. Therefore, to achieve the objectives proposed in the design of this project, I cannot limit myself to a single research method, but rather combine the deductive and analysis methods, since the investigation begins with the observation and concern of the problem at the national level and led to a concrete reality in the Monsignor Guillermo Hartl educational establishment, to later analyze the data obtained through various sources of information and application of instruments.¹²

This type of research is based on the deductive and analytical methods, which is carried out with groups of students whose participation is active throughout the investigative process; and through the application of various instruments that have as their goal the transformation of reality, that is, that the analysis of the

results will help to improve pedagogical practices and therefore the improvement of the quality of teaching, which subsequently implies the method of analysis that will allow me to obtain the necessary results to have an overview of how the quality of performance affects the achievement of competencies and thus in the improvement of teaching.

It is necessary to indicate that the ideal direct observation as a research method incorporates multiple sources of data on student performance.

Information gathering techniques

Let's not forget that in accordance with the guidelines and criteria given according to educational policies: the evaluation must be focused on performance in the workplace based on their knowledge (domains in their training) of their knowledge of being (behaviors and actions) and of their knowledge to do (their educational practice).

However, the evaluation instruments are the tools that must be used to determine the performance, and in turn determine the training needs of those evaluated. Among the instruments to be used to evaluate the formation of performances are: Files, charts and questionnaires. The Files: They will make it possible to determine the individual training needs that students have or require, to suggest and offer satisfaction alternatives. The Tables: They will be used to make consolidated training needs detected in those evaluated and will allow grouping the individual needs to offer conferences and workshops aimed at meeting common training and development needs in those evaluated.

The Questionnaires: They will be used to detect training needs in a time interval, covering a wide population of evaluated, and will allow me to design strategies to satisfy varied needs, whether training or any type of need.

Instruments will also be used to carry out the performance evaluation process, among them are:

Diagnostic instrument

It will make it possible to assess certain situational or contextual factors whose information will be necessary for the planning and determination of strategies that favor the development of the projects in execution.

Measuring instrument

The measurement will help the evaluator to compare the student's performance in certain aspects or areas with a standard or with that of the others evaluated.

Evaluation method

"Path by which a certain result is reached, even when that path has not been set in advance in a desired and thoughtful manner". Let's not forget that performance evaluation methods are considered as a reflection, which allows guiding the proposed objectives, in relation to the graduation profile that the specialty requires, so the characteristics of the activities included in it must be consecutive and systematic. The methods represent norms and procedures that are used in the performance evaluation process to organize and guide the teacher's activity towards the proposed objective, in order to prepare and follow up on labor competencies.

Therefore, the evaluation methods to be used will be:

Class observation

I believe that this evaluation method is very important and necessary to evaluate performance and can be a systematic evaluation strategy, since the observable didactic actions will provide a sufficient basis to judge the degree of performance of the students.

Conceptual and operational definition of variables (Table I)

Table I Information analysis techniques

Goals	Variable	Indicators	Item
1.- Generate a database of work behaviors with the knowledge, skills and abilities corresponding to each level of performance.	Labor Skills	intentionality	Is there a relationship between the Graduation Profile (Decree 220) with Labor Competences?
	Graduation profile	Clarity	Is there clarity of the performance required with respect to Labor Competences?
2.- Identify the basic generic job skills required in the world of work.	Curriculum Elements	Relevance	Do the contents meet the demands of the productive world?
			Are the Labor Competences clearly defined?
	Labor Skills	Clarity	Can they be grounded in the communal and regional reality?
3.- Analyze the implications of the competency-based education approach on curricular development and apply its elements basics in the development of a performance evaluation proposal.	Assessment	Flexibility	Do they respond to the productive need of the country according to the FTAs?
		Present	Is the evaluation related to performance?
		integrality	Are the contents clearly expressed in a competency-based curriculum?
4.- Interpret the learning assessment in a competency-based curriculum.	Elements of the Curriculum by Competence	Clarity	

Information analysis techniques

Once the aforementioned instruments have been applied, the information will be gathered, tabulated, transformed into percentages, and question after question analyzed. This will be done using the Excel spreadsheet using the sum and percentage formulas.

It is complemented with information collected through direct observation.

Presentation and data analysis

The information collected and tabulated will be presented in statistical tables and graphs of each of the questions asked in the surveys with their respective variables and corresponding percentages.

The incidence of these answers on the subject of the investigation will be analyzed, also presenting general summaries, which will allow to visualize the reality of the quality of performance.

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Self-assessment

“It is the method by which the student himself is requested to make a sincere analysis of his own performance characteristics.” The self-assessment will determine and stimulate the ability of self-analysis and self-criticism of the student; their self-development potential, and increase the level of competence.¹³

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