Que piensan los alumnos sobre el aprendizaje: Un estudio exploratorio en educación básica y media superior

What do the students think on learning: an exploratory study on basic and higher education

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Resumen

Las concepciones de aprendizaje es un aspecto que precede a la postura que los alumnos toman ante las distintas demandas educativas, ya sea desde el espacio escolar o del espacio social. Este estudio realizado en el grupo de investigación Aprendizaje Pensamiento y Desarrollo del Instituto de Investigación y Postgrado de la Facultad de Psicología de la Universidad Autónoma de San Luis Potosí, tuvo por objetivo explorar las concepciones de aprendizaje de los alumnos de los distintos niveles educativos, preescolar, primaria, secundaria y medio superior. Basado en una metodología cualitativa se obtuvieron y analizaron los argumentos expresados acerca del aprendizaje y sus distintas implicaciones.

Palabras clave: Concepciones de aprendizaje, pensamiento del alumno, cultura del aprendizaje.

Abstract

The conceptions of learning is an aspect that precedes the posture taking students to the different educational demands, whether from school space or social space. Objective of this study in the research group thought learning and development of the Institute for research and graduate of the Faculty of psychology of the Universidad Autónoma de San Luis Potosí, was to explore conceptions of learning of students of different educational levels, pre-school, primary, secondary and upper. Based on a qualitative methodology they were obtained and analyzed the arguments expressed about learning and its various implications.

Key Words: conceptions of learning, thinking of the student, culture learning.

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Introduction

The need for change in the social and institutional order to bring the current phenomena as postmodernism, globalization and the information society, have left their effects on the loss of sense and movement of institutions like family and school its character as educational forming new generations, leaving such responsibilities under other representative means of modern society, such as turn out to be the television, the internet, social networks, etc. It is this current framework of society where talk of education is talk of changes and modifications, as due to the new view of education as an agent of change in society has led to new elements that are involved in the dynamics are studied school, as is the thought referred to the learning process.

Education is currently in the process of reform, both in terms of basic education as a high school level, which involves not only the inclusion of individuals and social groups, but also expanded their horizons, setting new goals and purposes (Pozo, et. al., 2006), these reform processes include also new and novel elements as part of the curricular dimension and purposes such as skills, curriculum standards, learning outcomes, assessment for learning, etc., but above all, they include new ways of understanding teaching and learning.

This work represents an effort to inquire what are those conceptions of learning hovering in the minds of students in basic and upper secondary education, and is the media base that regulates their actions in the classroom and learning, study that will reveal the distance between educational purposes and the conditions actually existing in connection with the students, who in the new educational reforms have a key role in processes related to learning precisely.

Theoretical framework

Educational change in Mexico

The school as a social institution is an indispensable link in the structure and development of society, because it represents the social unit in charge harmonic functions and training of competent individuals is subject, able to develop their potential effectively in the setting them to influence the development of society. Currently, in this context there have been new questions about the purpose and process of education, because of the current social changes determined by phenomena such as postmodernism, globalization and the information society, which originate new ways of understanding society and their respective needs.

Related to this, in recent decades the national education system in their quest to adapt to the demands of the global context, has contributed to the recognition of education as a key element in the training of individuals from different educational reforms, aiming to amend the mistakes and embarrassments, social and cultural rights, caused by the transition to a new society.

Beginning in 1994 with the integration of Mexico to the Organization for Economic Cooperation and Development (OECD), it begins to pose a series of reforms and improvements in relation to social welfare and education in the country. Consequently in 2007 with the configuration of the Integral Reform of Basic Education (RIEBER) and its consolidation in 2011, where the preschool and elementary level is envisaged, to propose a series of changes aimed at developing a cutting-edge educational model, recognizing the approaches to teaching and learning as guiding principles to ensure that students learn for life and throughout this. The application of the model skills, curriculum standards, learning outcomes, early learning, graduate profile etc. They have been some of the approaches which aims to develop not only knowledge but also skills, attitudes and values, which involve more than knowledge, know-how and know how to be; well it is intended that these skills are carried out jointly in everyday life (Ministry of Education, 2011).

Among the changes proposed by the Ministry of Public Education (SEP, 2011) and the Secretariat of Basic Education (SEB) 592 consolidates the Agreement through which the articulation of basic education is established, which is presumed adapts and adopts visions of people like Jose Vasconcelos and Jaime Torres Bodet, along with earlier agreements such as the modernization of basic education and the Alliance for Quality Education, which

consolidates and establishes RIEB the integral formation of students in preschool , primary and secondary, with the intention of promoting the development of life skills and achievement of the graduate profile, based on learning outcomes and the establishment of Standards Curriculum, Teaching and Teacher Performance Management.

Primarily, the 592 (SEP, 2011) Agreement seeks to articulate basic education by prescribing a number of approaches that are established in the curriculum 2011 and includes the following principles:

- Focus on students and their learning
- Plan to enhance learning
- Creating learning environments
- Work to build learning
- An emphasis on skills development, achieving the expected curriculum standards and learning
- Use educational materials to promote learning
- Evaluate learning
- Encourage the inclusion to address diversity
- Incorporating issues of social relevance
- To renew the covenant between students, teachers, family and school
- Reorient leadership
- The tutoring and academic counseling to school

These principles are designed taking as a basis the main Learning Model that unlike the model of teaching, emphasizes the dynamic that favors the construction of learning in the classroom to transform it into a human, collective and permanent practice. So that learning as a process of construction involves the assumption that it is not enough to present information to an individual to develop a learning this, but it is necessary to involve its own internal expertise to build it.

In the same line of change we can see what is happening today in the school curriculum from high school, where under the Comprehensive Reform of School Education (RIEMSER), states that the institutions that make up the National High School will share a

common curriculum framework based on a skills-based approach to development, which are generic skills, disciplinary skills and professional skills. All share options Baccalaureate generic skills, while disciplinary and professional skills will be defined according to the specific objectives and needs of the level subsystems and institutions.

In the framework of the Comprehensive Reform of RIEMSER consider two levels of complexity for disciplinary skills: basic and extended. The core will consist of competencies that all students regardless of their future academic or professional career, they will have the opportunity to be in play. Meanwhile, the extended powers involve desirable levels for those who choose a certain academic background to enter higher education complex. Therefore, extended disciplinary powers have propedéutica function; to the extent that prepare students for the EMS to enter and remain in higher education (SEP 2011).

From this perspective the role of the teacher mean abandoning the traditional view of education based on the transmission of knowledge from teacher to student, and choose to address the teaching process as a set of measures to develop the construction process of learning, contemplating that when students are exposed to specific situations are being influenced or altered, their notions and conceptions (Carter, 1993).

These reforms or educational purposes, ultimately propose new roles for both teachers and students, not only to the elements or characterize the curriculum, which involves innocently assume that individuals can take on new roles with old frameworks . The new roles involve a change in school culture in which conceptions of the elements mentioned above change decisively in favor of the new pedagogy. Strategies, mechanisms, evaluation forms, and living environments form part of the curriculum, that teachers and students must take a different way, leading to recognize what the axes of rationality on which rest their performances are, what those with which they must work, consolidating them or changing them in favor of the reforms.

Conceptions of reality.

The study of concepts is a research area that handles explore ways of conceiving those objects according to researchers in the field of education can be named in different

ways: conceptions, preconceptions, beliefs, implicit theories, personal theories, judgments, orders, opinions, ideologies, among others (Pajares, 1992). Moreno and Azcarate (2003) argue that conceptions are implicit organizers of the concepts, mainly cognitive nature and include in its meanings, beliefs, concepts, mental images, preferences, etc., that influence what is perceived and the reasoning processes that take place.

The conceptions that humans build serve to address new facts and phenomena, interpreting situations, provide explanations, make anticipations, and also to form new concepts. These concepts are part and originate in different contexts of life of people, and when we refer to the conceptions of learning, these different contexts of life of the people and their way of interpreting different situations and explanations referred leading to his performance in the context of learning.

The approaches from which it has approached the study of the ideas are very different from those with a strictly psychological approach known as meta knowledge and theory of mind, such as those devoted to the analysis of everyday practice as the teacher profile and analysis of practice. But the interest in this work is to investigate the beliefs and conceptions of learning that identifies more with approaches that deal with the implicit theories and epistemological beliefs (Pozo et al, 2006).

More synthesized way, when we refer to conceptions of learning, we are referring to the qualitatively different ways in which the subjects express their ideas about learning and reflection on it. We can say that the concepts are not part of a single subject, but we can understand as descriptive notions of a group of subjects with cultural characteristics. On the other hand these concepts also depend on your individual construction of the experiences of each subject so in the process of building an independent part of the context determined by other factors personal epistemological break is also involved.

Rodrigo (1993) distinguishes between scientific concepts derived from academic contexts, and lay conceptions, which are the product of everyday interactions and spontaneously. The latter concepts derived from a basically pragmatic context, practical, spontaneous and directed to action. Instead, school knowledge is concrete, has a theoretical orientation experimental, scientific basis and (Rodrigo, 1993). Either way, in the dialectical

relationship and transition between scientific knowledge and everyday knowledge is impossible to deny the mediation of school, so when we talk about learning conception, we would be talking about a construction of knowledge influenced by both contexts; daily and the school where the nature and characteristics of each have a decisive bearing on the construction of notions and conceptions about learning.

In this paper the conceptions of learning are seen as that part of everyday knowledge, built and developed on this capability in both formal and informal action scenarios, including school.

These new perspectives to understand the concepts of learning, involve moving from a simple vision, in which knowledge and its acquisition is an all-nothing process, to more complex and constructive positions the development and shaping of concepts related to learning (Perez Echeverria, et al; 2006) in all contexts and for life.

Therefore, modify the proposals concerning education requires, among other things, change the representations, notions or concepts that students and teachers have about teaching and learning in order to promote new ways of understanding precisely the teaching and learning. In order to change these conceptions must first know them (Well, et. Al.2006), both pre-learning process, as they are generated during the same (Carter, 1993), likewise, involves know conceptions integrate these aspects that have to do with environment, goals, mechanisms, content, etc., besides knowing its representational nature and its processes of change and relationship with the practice of the same concepts.

From this perspective we can infer student thinking through the ideas that built around the learning process as a kind of epistemological beliefs related to the process of knowledge construction. This study suggests that priority watch posture towards learning student to this dynamic transition to a new educational model, because only by exploring their conceptions of learning will be possible to know the origin of their actions, related to the educational process inside and outside the classroom.

On the other hand, Rodrigo Rodriguez, and Marrero (1993) argue that the conceptions that people construct on certain aspects of the world, make a representational entity form what has been called Implicit Theory, defining itself as activation processes synthesis of

knowledge or beliefs that are produced in response to certain demands so that the resulting cognitive product (theory) is sensitive to situational conditions and goals of the individual (Rodrigo, et. al, 1993). Learning conceptions recognized as a synthesis of knowledge in everyday beliefs built under the service directly from the shares can then be interpreted as an explicit product always conscious learning, but by its nature to respond to specific demands that require action particular, many of these are not aware learning products, which necessarily requires the recognition of the activation of a specific process for recovery through the action or reflection (Rodrigo, et. al, 1993).

The approach implicit conceptions is based on the framework of epistemological beliefs (Pozo et al 2006;.. Rodrigo, et al., 1993.), As it is stated that in addition to the concepts, fundamentally pragmatic, that builds the individual on the social or natural world, certain beliefs about the value of these conceptions, which have also been called implicit epistemological theories (Pecharromán and Pozo, 2006) remain.

By studying the epistemological beliefs of the subject are typically identified three key positions: first, the objectivist position that places the object as something totally independent of the subject, and the latter is suitable or appropriates the object as it really is, the second The relativist position that considers that the truth or falsity of a statement regarding an external reality can not be established, but remains fully referring to who generates that knowledge is an individual subject or a cultural group, without having to share transubjective or transcultural criteria of verifiability, and finally, the conception of knowledge as to position integration and Construction (constructivist position) that conceives knowledge as dialectic or a construction in which two poles are counted, the objective and subjective, both define and build mutually (Pozo et al., 2006).

It is in the last position of epistemological beliefs on where the implicit conceptions, because knowledge has a dialectical and constructive, and open to rethinking; to allow a review of the idea of correspondence between knowledge and reality (Pozo et al., 2006). Much of the empirical studies, since this Focus inclined to admit that the constructivist approach means a more elaborate and complex position, which integrates previous conceptions (Pecharromán and Pozo, 2006).

Move to projects of this magnitude praxis successfully is a challenge because of the implications involving the entire educational community, such as teachers, parents and especially the students, however, in the present study through arguments obtained in the interviews, they were able to rescue the different ways in which the individual attributes the world around him from the representations involved in the learning process, and how is facing the demands of school and their daily lives from their own conceptions.

From this approach, although Pozo et. al. (2006) presented the underlying theory as an explanatory framework of conceptions, has been called as an operating system of cognitive functioning that they determine how a specific scenario Pozo and Crespo (1998), and unlike Rodrigo et is processed. al. (1993), the resulting product or cognitive theory of knowledge in specific areas of reality, what has been called Theory domain. One theory operates at the level of knowledge when the person uses a declarative theory to recognize or discriminate between various ideas, produce verbal expressions about the domain of theory (O'Shanahan, 1996).

Although there are conceptual differences in terminology, it is possible to clarify that the views of the individual are not stored as such, but which result from a development which is influenced by a model of content as a result of inherited from the social environment of the individual experiences, and that adapts to the demands in a situation. Pozo, et says. al (2006), to understand the conceptual change as a process of explanation and progressive redescription in different representational levels, it is not to acquire knowledge or to substitute for one another more elaborate, but learning to turn knowledge into appropriate contexts, as it existed implicit conceptions rooted, and therefore difficult to change, so heavily dependent actions of context and therefore more variables, implicit theories.

Based on the aspects that takes into account this theoretical construct is that they have studied the ideas, considering that knowledge is constructed through a process of spontaneous learning, and where perceptions that people have about reality is not only learned through what we call formal schooling, but through cultural activities or practices developed in social interaction (Bruner, 1983 O'Shanahan, 1996). This also has given importance to the development of conceptions from common sense, considering that the

content of the theories is socially normativizado and hence the conventional nature of its representation (Rodrigo, 1993).

Models and approaches to learning

Recently the study of mental models not only address the issue of concepts, but also between current research explores how students face situations where learning processes and involved a range of different authors termed as approaches learning (Biggs, 1987; Entwistle, 1988; Marton and Säljö, 1976). Regardless of teaching practices, there seem to be two basic cultural forms of approach to learning by the students, characterized by different conceptions of learning: one oriented toward understanding the meaning of the study materials and other oriented reproduction materials for academic study and evaluation purposes, the first orientation refers to the deep approach to learning and the second to surface approach (Hernandez, Garcia and Maquilón; 2001).

These definitions clearly described we can find from the work done by Marton and Säljö (1976), who were the first to coin the terms and use deep focus and superficial approach to refer to two different ways of processing information. The surface term was used to refer to those students who had a reproductive view of learning and deep term they used to describe students who showed more interest in the meaning of what they learned and whose objective was to understand.

Within the study by Säljö (1979 Cabanach, R. 1997), refers to the existence of five conceptions of learning in university students:

1. Learning how to increase knowledge
2. Learning as memorizing
3. Learning as data acquisition and procedures that can be used in practice.
4. Learning as abstraction of meaning
5. Learning as an interpretive process that leads to knowledge of reality.

If we adopt the perspective that approaches qualities are not fixed but are processes that emerge from the perception that the student has the academic work influenced by their

individual characteristics (Biggs, 2010) we can be seen as a basic part of the construct learning approach staff student holding this inclination in learning situations. This as a result of attributional student element of thought, where the main function is to take over representational relating to plan their behavior. This allows us to define the relationship between the conceptions of student learning as elemental basis underlying their approaches to learning, without forgetting that the concept involves personal and institutional elements that interact to determine the types of learning adopted by the student (Abalde, et. al. 2001).

This is also seen in the work done by Marton and Säljö (1984) and Biggs (1989), which relate the concept to learning approaches, based on learning the concepts encountered by Martin and Ramsden (1987) and Van Rossum and Schenk (1984 in Cabanach, R. 1997), which concerned the determination of two main types, which are known as quantitative, where learning and knowledge acquisition or increase of relying primarily on understanding the repetitive memorization that is conceived, and the second type of design that can be called qualitative, sophisticated or reproductive, where they conceive learning as a process that leads to a better understanding of reality and can generate conceptual changes. Marton and Säljö (1984) and Biggs (1989 Hernandez, et. Al. 2005) state from these two major types that the first conception is more associated with the surface approach, and the second to a deep approach to learning, as the relationship of the conceptual nature with each representational inclinations.

Also have arisen other findings in relation to the concepts and approaches of intermediate learning from a conceptual inclination to another, as some writers like Entwistle (1988), argue that a new approach to learning as a result of the combination of the two above or, as stated Kember and Gow (1990) which are intermediate positions within the approaches.

Who report the emergence of a new approach based on the assumption that one student has multiple goals, so in the same student may be different intentions which are updated depending on the context, the task, content, etc. or intentions to match the perceived demands, so that the student displays the most appropriate strategies to respond to these various intentions.

This is clearly seen in the work of Entwistle (1988) on the strategic approach he called and defines it as an approach with a clearly defined intention to maximize performance through proper planning of activities, effort and time available, the more you search for relationships with prior knowledge or rote memorization of the learning material is characterized by the planning and organization of various activities with the primary goal of obtaining the highest academic achievement possible.

Unlike the vision of strategic focus, Tang (1993 Cabanach, 1997) distinguishes two subcategories within the shallow approach, a "restrictive superficial approach" memorizing material without intent to understand, the "elaborative superficial approach," where you try some degree of organization and interaction of concepts before memorization. This description is closely related to what it describes Kember and Gow (1990) in a position that precedes knowledge memorizing and memorizing the other is used as a strategy to achieve or increase awareness.

Unlike the superficial approach and deep focus, intermediate positions proposals regarding these proposed by several authors approaches are hardly generalizable because the descriptors themselves that refer to very specific aspects of educational practice, or specific population with it worked and these results, so to be considered in the first instance in this work the first two approaches, shallow and deep, as a basic background where ideas can integrate objects of this study were found.

These findings have led to relate these two functions of thinking in learning processes on the one hand, we find the representation that the student is learning in terms of tasks, stages, goals, etc. learning, and secondly, what the same student is attributed to react to certain learning demands. Conceptions of learning constitute therefore those axes of rationality that students recognize as background towards a culture or approach, based on their performances in the classroom.

Metodology

In order to explore the notions and concepts that students have preschool primary, secondary and higher average, and recognize the common and divergent elements in each, the study was approached from a methodological framework with a descriptive qualitative scope, where notions and concepts in students from each educational level were explored, since the purpose was to know their axes of rationality throughout his academic career.

Participants were 37 students in preschool, 60 elementary students, 60 high school students, and 60 students from the middle level, all belonging to public institutions in urban areas and rural areas. The sample was chosen intentionally because they were taken as study participants to two groups of students by educational level.

For data collection was used as an instrument of individual interviews semistructured information contained in the guide reflection axes (dimensions) around which the interview was aimed to achieve a direct contact with students and their expressions, since the purpose of the interview in qualitative research is to obtain descriptions of the world of life interviewed regarding the interpretation of the meanings of the phenomena described (Kvale, 2011), in this case learning.

The interview focused on five dimensions of learning:

- Concept learning

- Learning Environments

- Learning content

- Purpose of learning

- Learning mechanisms

To analyze the data the content analysis technique using coding and categorization was used as analytical tools. Through coding raw data to alphabetical indexes systematically transforming them into units that allow an accurate description of the characteristics of their

content (Hostile, 1969 Andreu, 2001) they were transformed. While through categorizing the elements of a set by differentiation they were classified after the grouping by analogy from predefined criteria (Bardin, 1996 Andreu, 2001).

To make the process of content analysis was taken as reference proposed by Andreu (2001) based on Bardin (1996) and Hostile (1969), which is described by a number of process steps:

1. It was defined the object or subject of analysis in this case the Conceptions of Learning.

2. The registration units were determined with the possibility of analyzing them in isolation, which in this study were short statements called arguments.

3. encoding rules were determined to describe the content of the arguments:

- Units and significant segments which resulted in an inventory of arguments were detected, making way for a first filter.

- A categorization scheme and keywords (codes) that were used to classify and organize the arguments were developed.

- Argumentative patterns were sought to define each category.

4. the category system was determined.

- The different categories found for each dimension of learning, which subsequently allowed to relate the categories in different dimensions according its axis of reflection were defined.

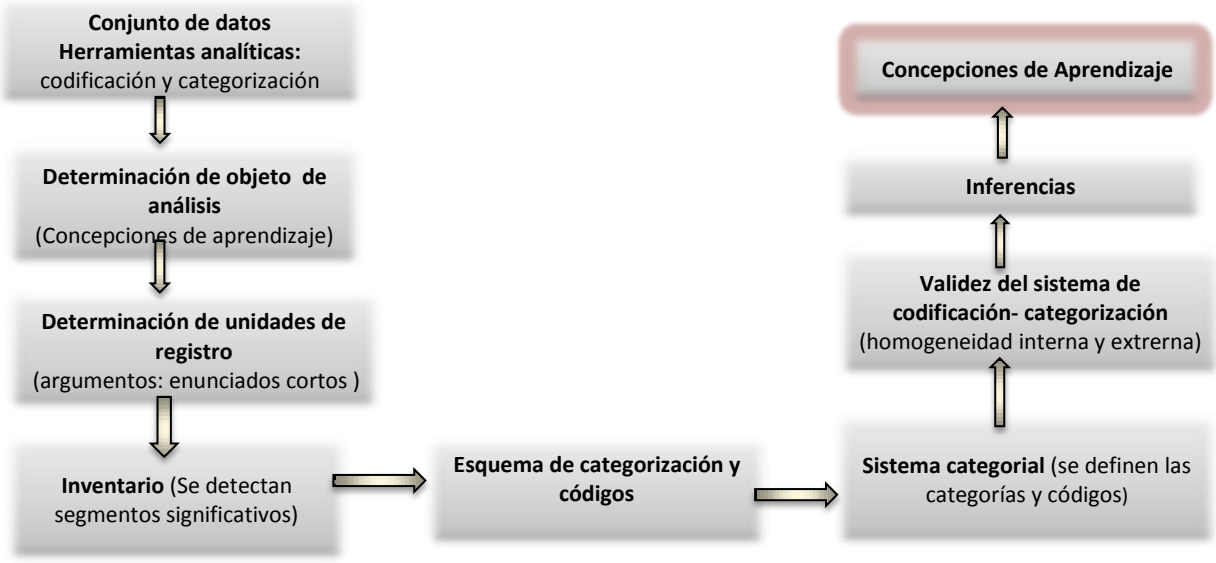
5. System Reliability categories

- An interesting aspect is the presence of two types of homogeneity in the categories. The internal homogeneity refers to data categories individually and fit perfectly if they reflect on it (Mayan, 2001), something that was observed by the codes of each of the categories. External homogeneity was also observed as it relates to relationships between categories, if they are all different and differential to be the differences between them have to be solid and clear (ditto).

6. To end the scan was performed which Bardin (1996) called inferences, which in this case was to identify and define the concepts of learning in each educational level.

Back to content analysis frequency arguments allowed to know the argumentative weight to design learning in each educational level was obtained.

Table 1. The following table shows the process of data analysis represents.



Results

Later from complete recovery of arguments and analysis, the study allowed to assess conceptions about learning that appear in each level and make the axes of rationality with which subjects assume their responsibilities towards their learning. A first approach can be seen in the following tables, where the content of each of the learning conceptions found described.

Table 1 shows the design shown Dependent School, which emphasizes learning as a result of interaction dependent school teacher and the school environment, school contents, memorization / Imitation and accumulation of information to obtain qualifications and continuity of schooling.

Concepción Escolar dependiente				
Características de la Concepción de aprendizaje.	**Preescolar**	**Primaria**	**Secundaria**	**Medio superior**
Escolar dependiente: **Resultado de la interacción escolar** **Dependiente del profesor y del ambiente escolar** **Contenidos escolares** **Memorización/Imitación** **Acumular información** **Calificaciones, continuidad de la escolaridad.**	Concepción que en este nivel hace énfasis en que el aprendizaje se produce como resultado directo de las condiciones escolares, y el mecanismo reconocido es la imitación, el objeto es adquirir información y habilidades ligadas al contexto escolar.	Concepción que en este nivel hace referencia a que el aprendizaje es resultado de un proceso de retención y reproducción de contenidos asociados al cumplimiento de actividades escolares, la principal finalidad son las calificaciones y la aprobación del grado escolar, se reconoce la imitación y la memorización como mecanismos de aprendizaje, dependientes del quehacer del profesor.	El aprendizaje es un proceso de retención y reproducción de contenidos disciplinares, dentro del ambiente escolar, se reconoce la atención como uno de los principales mecanismo de aprendizaje además de la imitación y la memorización, la finalidad última se traduce en estudiar una carrera o encontrar oportunidades de trabajo	El aprendizaje está asociado a una visión superficial y pasiva donde los contenidos disciplinares solo se conciben para ser memorizados utilizando mecanismos personales simples, donde se prima la retención de la información con una finalidad estrictamente de cumplimiento de demandas escolares

Table 1. Conception School Learning dependent on each level.

Table 2 Cumulative conception Dependent shown, which appears only in the secondary and high school level and refers to learning as the accumulation of information dependent on education and social interaction processes, any content learned in all environments, memorization / Imitation main mechanisms of learning and its purpose is social utility and academic recognition.

Concepción Acumulativo dependiente				
Características de la Concepción de aprendizaje.	**Preescolar**	**Primaria**	**Secundaria**	**Medio superior**
-Acumulación de información **-Dependiente de la enseñanza y procesos de interacción social** **-Cualquier contenido** **-Todos los ambientes** **-Memorización /Imitación** **-Utilidad académica y reconocimiento social**			El aprendizaje se relaciona con la acumulación de información de cualquier contenido, se prioriza la atención, la memorización y el ensayo y error como mecanismos de aprendizaje dentro de los contextos familiares y escolares su finalidad última se relaciona con la utilidad académica y el reconocimiento social	El aprendizaje se relaciona con la acumulación de información de cualquier contenido, se prioriza la memorización, la imitación y el ensayo y error como mecanismos de aprendizaje dentro de un entorno de enseñanza y procesos de interacción social, su finalidad última se relaciona con la utilidad académica y el reconocimiento social

Table 2. Cumulative Learning Conception dependent on the secondary level and upper secondary.

Table 3 shows the Adaptive Production design, where learning results and / or dependent of the action and / or practice contemplated shown, only the translatable into actions, rules, or requirements of the context, you learn in all environments , learning mechanisms are imitation, trial and error, practice, modeling, and meet the demands of the context (home-school) is the purpose of learning.

Concepción Productivo Adaptativo				
Características de la Concepción de aprendizaje.	**Preescolar**	**Primaria**	**Secundaria**	**Medio Superior**
-Resultado y/o dependiente de la acción y/o la practica **-Solo lo traducible en acciones, normas, o exigencias del contexto** **-Todos los ambientes** **-Imitación, ensayo y error, practica, modelamiento** **-Resolver situaciones cotidianas**	Productivo adaptativo El aprendizaje es producto de la repetición reiterada de los contenidos adquiridos, donde se integran actividades orientadas a reglas de comportamiento y tareas domésticas además de las actividades escolares, se contempla a la familia también como un escenario de aprendizaje, la observación activa y la instrucción son los principales mecanismos utilizados, y tiene como fin la reproducción de la información y la utilidad que tiene ésta para responder a las demandas del medio	Productivo Adaptativo El aprendizaje es producto de la dinámica escolar y familiar asociado principalmente a normas de comportamiento y demandas del contexto, involucra a familiares y profesores como instructores principales de su aprendizaje, se reconoce la imitación, modelamiento, ensayo y error y practica como mecanismos del aprendizaje, su finalidad es la aplicación en demandas diarias de la vida cotidiana	Productivo Adaptativo El aprendizaje es un proceso que implica necesariamente la aplicación de todo aquello que se conoce en cualquier ambiente de la vida cotidiana y/o escolar se hace énfasis en la utilidad del aprendizaje como respuesta a sus demandas y a las futuras oportunidades de trabajo y/o estudio de una carrera	Productivo Adaptativo El aprendizaje esta asociado con lo que tiene sentido y uso inmediato en la práctica, los contenidos se relacionan con habilidades para el desarrollo profesional y laboral. El mecanismo que se privilegia es ensayo y error y está relacionada con una finalidad de resolver problemas, demandas cotidianas y la obtención de beneficios y/o recompensas

Table 3. Production Design of Adaptive Learning at each educational level.

In Table 4 shows the Constructive conception, which is present in the four educational levels and emphasizes learning as dependent on support, and decision making, experience, judgment and change involves disciplinary content, skills and content for personal, social and professional development, learn in all environments, the mechanisms are collaboration, discovery, experimentation, reflection, recreational, and its purpose is the harmonious development associated with personal, social and labor requirements.

Concepción Constructiva				
Características de la Concepción de aprendizaje.	**Preescolar**	**Primaria**	**Secundaria**	**Medio Superior**
-Dependiente de acompañamiento, toma de decisiones, experiencias, juicios y cambio **-Contenidos disciplinares, habilidades y contenidos para el desarrollo personal, social y laboral** **-Todos los ambientes y experiencias** **-Colaboración, descubrimiento, experimentación, reflexión, actividades lúdicas** **-Desarrollo armónico asociado a necesidades personales, sociales y laborales**	Constructivo El aprendizaje se concibe como algo que está presente toda la vida y atribuible a todas las personas, es resultado de interacciones a través de las cuales se generan nuevos conocimientos, integrando contenidos ligados al desarrollo personal y social presentes en diversos escenarios como los amigos, la televisión, además de la familia y escuela; el descubrimiento y la exploración comprenden los mecanismos utilizados con la finalidad de comprender la utilidad de lo que se aprende.	Constructivo El aprendizaje es resultado de todas las situaciones cotidianas y se atribuye a todo aquello producto de la experiencia, se reconoce la propia responsabilidad en los procesos de aprendizaje experimentados principalmente a través de la práctica, sin embargo, se involucra a todas las personas con las que conviven como parte del aprendizaje, su principal finalidad es responder a situaciones que contribuyan al desarrollo personal y social.	Constructivo El aprendizaje considera la comprensión del significado de todas las experiencias ligadas a cualquier ambiente, se reconoce la responsabilidad del alumno en un proceso dinámico del aprendizaje al trabajar tanto de forma autónoma como de forma colaborativa, la finalidad es lograr el crecimiento y desarrollo personal más que académico.	Constructivo La concepción del aprendizaje está ligada a lo que tiene sentido y por lo tanto puede ser utilizado para la vida cotidiana y futura. Los contenidos se centran en el desarrollo personal y se utilizan mecanismo donde se involucran el acompañamiento y la reflexión. La finalidad se asocia con el crecimiento personal y el desarrollo armónico.

Table 4. Design of Constructive Learning at each educational level.

Finally, Table 5 shows the design Constructive Transcendental present only in high school level, where learning is associated with insight, accompanying dependent, decision making, experience, judgment and change involves disciplinary content, and content skills for personal, social and professional development, you learn in all environments and experiences, mechanisms include investigation, inquiry, self-assessment, use of complex thinking, experimentation, reflection, and aims to build an interpretation of reality associated with the development personal and social.

Concepción constructiva trascendental				
Características de la Concepción de aprendizaje.	**Preescolar**	**Primaria**	**Secundaria**	**Medio Superior**
-Asociado a una visión profunda -Dependiente de acompañamiento, toma de decisiones, experiencias, juicios y cambio -Contenidos disciplinares, habilidades y contenidos para el desarrollo personal, social y laboral -Todos los ambientes y experiencias -Investigación, indagación, autoevaluación, uso del pensamiento complejo, experimentación, reflexión -Construir una interpretación de la realidad asociada al desarrollo personal y social.				Constructivo Trascendental El aprendizaje se asocia con cambios personales y sociales, que involucran experiencias que enriquecen la toma de decisiones y juicios, se promueve el desarrollo integral y promoción de independencia. Los mecanismos utilizados están enfocados a un trabajo propio con una motivación personal, enfatizando el uso de la investigación, indagación y autoevaluación. La finalidad es construir una interpretación de la realidad asociada al desarrollo personal y social.

Table 5. Conception of transcendental Constructive Learning in the high school level.

After looking at the above tables on the issues that each level of education in their conceptions relates, we can highlight several important points that are reflected in the results:

In the first instance varied conceptions of learning are presented in the study population. While a single axis of rationality as the basis for the conceptualization and implications of learning, every educational level involves experiences related to their upcoming contexts according to the demands and develop spaces where elements are shared in each conception of learning. Thus, the results show similarities and differences between the concepts found in each level, but were shared concepts between educational levels, also they appeared conceptions of learning that is only expressed in the upper middle school level and as the cumulative conception - dependent, or But only the high school level, with the transcendental conception constructive. Table 5 shows these differences can be observed:

Concepciones de aprendizaje encontradas en cada nivel educativo						
	Escolar Dependiente	**Acumulativo dependiente**	**Productivo adaptativo**	**Constructivo**	**Constructivo trascendental**	Total de argumentos
Preescolar	26.6%		30.6%	**41.8%**		304
Primaria	**44.8%**		21.3%	33.9%		599
Secundaria	**40.7%**	20.6%	25.9%	12.8%		514
Bachillerato	16.9%	20.3%	13%	**33%**	16.7%	605
Total de argumentos	663	229	433	596	101	20122

Table 5. Frequency of arguments learning conceptions found in each level.

Conclusions

The above findings show that students do not maintain a uniform conceptions about learning, but clear differences between them to represent learning. This aspect is related to the assumption that the concepts are not a homogeneous and unchanging property, but they vary depending on the experiences, both individual and collective in which the student develops (Rodrigo, et. Al., 1993) of So even in the same individual conceptions will not be constant and unchanging, as they will be consolidated on the basis of a process of construction.

In each learning design elements prevalent in all levels of education they were found. In school learning a causal dependent conception of schooling and predefined expressed by third parties, the cumulative conception related dependent learning as an accumulation of knowledge without practice or size it to daily use, adaptive production concept refers to learning and adaptation the demands, mainly school and family, building design to everyday situations and amplifies next contexts of coexistence and constructive transcendental conception related to learning and personal growth as a tool to interpret reality. One can say that every conception includes certain level of complexity, where the organization of the elements that are categorized shows the level of relevance to the situations experienced by the student.

Related to the above, the level of complexity of the concept of learning requires a process of preparation and organization of various representations and conceptualizations, a process that is related to the development and maturity of the student and that is an aspect that is expressed in the different conceptions found, to be noted that depending on the student organizes educational level, with varying complexity, their conceptions of learning.

Meanwhile, the level of complexity of the concepts is related to the student's experience. According to the educational level involved in their conceptions of learning contexts elements of the next student, for example, in the dimension of learning environment preschoolers limited vision of learning scenarios mainly related to family or school, Unlike the secondary level where students relate activities with peer group, or at the high school level where involving aspects of professional or workplace.

On the other hand, we can see how well are individual differences among the same group of students related to individual experiences, where within the same educational level refer to at least three different conceptions based on different axes of rationality referring mainly to various concepts, content and aims of learning.

The constructive epistemology conceptions, as the result of experiential learners, leads us to recognize the influence of the different scenarios where he lives, such as family, school, groups of coexistence, the media, society, etc. However, we know that the school environment is an environment that strongly influences the conceptions of student learning, breaking the notions built in this same competition acquired and recreated in the everyday world

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