

**Investigation of the teaching-learning processes among  
students, educational staff and school management in a  
multiage structure in relation to the experience of significant  
learning**

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## **Abstract**

This study deals with examining the background and the reasons that encourage and inhibit significant learning amongst pupils in an elementary school that operates in a multi-age structure. This study's importance is in identifying and exposing the various teaching-learning processes, such as adapted teaching, mediated teaching, colleagues' learning, interdisciplinary teaching and the Montessori education method and their influence on the experience of significant learning.

Significant learning is a subjective feeling, as each human being experiences it in a different way, this bringing about a multitude of definitions in research literature and the challenge to expose the ways to reach this experience amongst pupils. This study presented the elements and characteristics of significant learning while deeply observing participants: pupils, educational staff, management staff, and teaching-learning processes in a multi-age structure.

The studied school started out as an experimental school and today serves as a school for distributing experiments and initiatives in the Ministry of Education, and is unique in the fact that it is a pioneer in implementing a multi-age structure. This is the origin of the initiative and curiosity to detect challenges, changes, and contributions of teaching-learning processes with disposition to significant learning in this structure.

A theoretic model that presents the various teaching-learning processes in a multi-age structure was built for this study, and it aspires at examining the significant learning derived from this structure and these processes amongst pupils. The common assumption is that a multi-age class enables the learner to be interactive with a wide variety of pupils that represent a wide range in the cognitive, emotional, and social fields according to each pupil's personal progress. This rationale is supported by development theories and trends according to which creating a multi-age class school framework could better prepare its graduates for living in the real world. Conversely, there exists broad criticism from the research aspect, which claims that research in the field is still in the beginning of its path and research literature on multi-age issues has relative methodologic weakness, is anecdotal and of low quality.

This study will examine the fitness between the various theories and trends and the changes and contributions derived in the field. For this, we will look at an educational institute that has a multi-age structure with two clusters. The clusters have pupils from three age levels. Pupils from classes a-c learn in the young cluster and pupils from class d-f learn in the mature cluster.

The study was conducted through qualitative methodology as a case study with triangulation carried out amongst the participants and research tools. The study was

carried out on eighty participants: sixty-three pupils and seventeen management and education staff members. It included observations, interviews, research diary, and mapping. The data was analyzed according to the thematic analysis method through categorization and mapping.

The researcher was a member of the researched educational institute in her past and knows the vision, processes derived from it and the context in which it operates. This fact was an advantage when processing and interpreting the information in the social-cultural and historical context in which they operate. In order to avoid ideological and emotional identification with the study's subjects the researcher was forced to manipulate between a feeling of belonging and estrangement, to carry out an internal reflective and criticizing discourse, and to consult with a colleague not associated with the field through the categorization and mapping process up to an agreement, as well as great use of participants' citations, in order to establish and strengthen interpretation of their words.

The study's findings show that the central elements that influence a significant learning experience amongst pupils refer to multi-age learning, optimum school climate, caring, and involvement, a variety of teaching-learning methods, a variety of content and styles and giving pupils choice and control in the learning system. We will briefly detail the characteristics behind these elements.

Multi-age learning is a model close to our life reality and it enables pupils' mobility according to the emotional, social, and, cognitive place they are in, notwithstanding their chronological age. The interaction in this environment encourages significant collegial learning where there is a dialogue of pupils in their "own language" and a leadership of the adult or "strong" pupils that enables them to demonstrate strengths, to feel empowerment and to help their colleagues in their class. Parallel to this, the class educator is free to mediate a significant mediation in harmony with additional pupils' needs in the class. A multi-age class demands that educators invest in a lot of thought, planning and time in order to create a varied learning environment directed at a varied path of teaching-learning that summons a variety of content, styles, skills and levels aiming to give an answer to the wide spectrum of pupils. The study shows that educators that believed in a vision saw this as a challenge and felt great satisfaction from the pupils' conduct in an environment that brought about their feeling of a significant learning experience. Contrary to them, educators that did not find real rationale in the vision, found great difficulty in alignment and implementation and felt no difference in significant learning experience amongst their pupils.

The school climate and the need of an organized and supporting environment are a vital condition for the existence of a significant learning experience. This is expressed in a



feeling of belonging, caring, empathy, and personal attitude that are the infrastructure for a sense of security and best growth. The pupils, educational and management staff conceived the school studied as being a supporting, safe, and comprising framework. Furthermore, there are even pupils who carried out an adaption between their parents and their educators and between their private home and the school, which suggests a feeling of belonging and firm security, which enable turning to learning and encourage significant learning.

Educational- ideological projects that embody pupils' caring and involvement also contributed to significant learning. An adult's tutor program brought before the pupils a realization of personal capabilities and self-fulfillment. Furthermore, the initiative, involvement, and volunteering of the pupils in the community contributed to significant learning, and to the desire, importance and perseverance that most pupils saw in this endeavor. .

The diverse teaching-learning processes relied greatly on tailored teaching aimed at giving the best answer to diversity between the pupils. The possibility of learning from a wide variety of contents, in a variety of styles and personal rhythm in a stimuli abundant environment encouraged independence and enabled the pupils an educated and adapted choice. Nevertheless, a few of the pupils had difficulty because such a framework demands the pupils to choose, and to show personal responsibility and independence and some found it difficult to function in this environment and needed a framework more clear and authoritative.

A deep examination found that these elements and characteristics could not absolutely predict a significant learning experience, this because each pupil's idiosyncratic personality elements are a solid and critical base for creating a significant learning experience. From this assumption the importance of three central elements, that could influence the significant learning experience appear- the first is matching the significant learning to the social, cognitive, and emotional maturity of the pupils. The second, a diverse physical environment that enables pupils to identify and find out their most comfortable and best way to learn. The third, a variety of contents, styles, and skills that will enable pupils to implement their potential in accordance to their abilities, inclinations, interests, and talents.

The importance of the current study is in the link between significant learning in a multi-age environment on which there is not enough information in the professional literature and the exposure and deepening of a variety of teaching-learning processes that provide a wider vision from the significant learning experience. The study exposes a variety of teaching-learning processes that provide an answer for the diversity between pupils and enlarge the probability for a personal fit and the significant learning experience.

Nevertheless, through a deep examination of these teaching-learning processes it was found that the capability of these elements to predict significant learning is not absolute, as there is significant meaning for observing each pupil's idiosyncratic personality elements. Therefore, teaching that is personally adapted gives the best answer for identifying these elements. It leans on three central elements: identifying and exposing optimal conditions for learning for each pupil, adapting the learning to emotional, social, developmental, and cognitive maturity of the pupil, and to a variety of expressive possibilities, talents, and inclinations with a goal of enabling the pupil to realize his potential.

The physical environment presented in the study is characterized by a wide variety of stimuli, contents, levels, and styles and gives the pupil the possibility to choose and control the learning alignment with an aim of answering diversity between pupils that brings about significant learning. This framework was discovered as not being suitable for all students because there are some that need a clearer and more authoritative one and find it difficult to choose and control in such a diverse environment. The pupils' involvement in contents that encourages caring, volunteering, and contribution was found to encourage experiences of significant learning and a feeling of empowerment and satisfaction.

The work in a multi-age class demands from educators much more investment in planning and a lot of time in creating a diverse learning environment directed at a variety of contents, styles, skills, and goals, as it provides an answer to a wide spectrum of pupils. Educators who believed in the vision saw this as a challenge and felt much satisfaction in the pupils' carrying on in the environment. In contrast with them, educators who did not believe in the vision showed a lot of difficulty in the alignment for a multi-age class, its implementation, sometimes even showing resistance to working in this structure.