LABOR et EDUCATIO
No. 7/2019

STUDIES

Elena Anatolievna Zhizhko

ORCID 0000-0001-9680-8247

Autonomous University of Zacatecas, México

Dimensions of Education for Peace: Theory, Spaces and Actors. Experiences from Mexico

Wymiary edukacji na rzecz pokoju: teoria, przestrzenie i aktorzy. Doświadczenia z Meksyku

Introduction

Mexican education is 500 years old, in the course of which its philosophical foundations, the models and teaching modalities, the ways and forms of its organization and direction, have undergone changes from the Aztec *calmecac* and *telpochcalli*[1], Catholic monastic schools, through positivist education, constructivist teaching, up to competency learning, etc.

---

[1] *Telpochcalli* (in Nahuatl language - house of the young men), were centers in the Aztec Empire where the youth of the town was educated, from the age of 15, to serve their community and for war. *Telpochcalli* was attended by the children of commoners (*macehualtin*), unlike the nobles who attended *calmécac*, an institution that was inside the ceremonial grounds. These schools for young people were in each neighborhood or *calpulli*. The Mexican (Aztec) world was characterized by the care that the rulers put in the proper functioning of their educational system. The schools of Tenochtitlan (capital of the Aztec Empire) attended to young people according to their social position (Zhizhko, 2015, p. 101).

At the end of the 20th century and in almost two decades of this new millennium, a new turn in the development of educational theories, conceptions and research is observed in Mexico (Díaz-Barriga, 1998, 2001; 2005; de Álba, 2003, 2004; García-Canclini, 1990; Giménez-Montiel, 1984; Hernández-Rojas, 1998; Luhmann, 1992; Pérez-Viramontes, 2018, among others); it determines the abandonment of the principles of authoritarian pedagogy with its contradiction of the teacher and the student (subject-object relations), the idea of domain and submission which promote the development of the creative possibilities and the students' intelligences; it motivates the rethinking of the methodological foundations of education and the modernization of content. These scientific-pedagogical contributions serve as the basis for the instrumentalization of a new education form that meets the expectations of the new generations of the 21st century, with innovative methods that enable the formation of individuals capable to respond to the demands of the contemporary world and empower the human being as a transformer of themselves and their realities. One of these reforming educational forms is based on complex thinking and foresees, above all, the development in the student of the culture for peace.

The objective of this work is to present the general view of the evolution of the epistemological and institutional foundations of the education for peace and its promotion in Mexico. It is a first approach to the subject through a documentary-bibliographic study, the results of which are presented below.

Main material

Historical aspects of the Mexican education system

The Mexican education system origins in the Indian civilization camp. The Spanish colonization (the 15 – the beginning of the 19th centuries) had subjugated the Mexican education system to the Catholic Church and Spanish cities, with the Mexican ethnic groups having lost their national identity, languages and culture. The development of the Mexican system of public education began with the process of Mexico gaining political independence in 1810 (Zhizhko, 2015a, p. 104).

In the 20th century the Mexican system of public education was influenced by the economic expansion of the USA, as well as the decrease of the social and economic wellbeing of Mexico, along with the decline of the system of higher

and pedagogical education. The development of the Mexican education system can be divided into the three periods: the first period, under the protection of Catholic Church and Spanish cities (the 15 – beginning of the 19th century); the second period, directed by the independent Mexican state (beginning of the 19th – the '90s of the 20th century); the third period, heading for the state and public organizations (the '90s of the 20th century – present times).

Modern Mexican Education System

The modern Mexican education system comprises of basic education (preschool, primary school and secondary school), preparatory school, higher education and postgraduate education. The principles of the Mexican education system were established in the Mexican Constitution on 5 February 1917. These principles are in force now and include the following: non-clerical character; prohibition to the religious corporations to direct primary schools; state revision of the private primary schools; accessibility of primary schools and free tutorship (Zhizhko, 2015b, pp. 93–103).

The object of the Mexican education system is its democratic and national direction, harmonious development of human individuality, education with love to the home country, development of self-consciousness, international solidarity in conditions of the independence and justice (3rd art.) (Ornelas, 1995, p. 15).

In the '90s the Mexican primary education system was federalized through two documents: *National Convent on Modernization of the Primary Education* (1992) and *The General Law o Education* (1993). In 1993, the 3rd article of the Mexican Constitution was reformed and obligatory education at the secondary school was implemented. In this period the process of the decentralization of the Mexican education system, which is typical for most American and European states, was observed.

In 2016–2017 4,656,941 students, 242,040 teachers, and 22,594 schools were registered within the Mexican education system (at all levels). The basic education level (preschool, primary and secondary schools) is aimed to develop the students' thinking, reading, writing, speaking, counting skills, as well as their ability to study systematically and comprehend the social life norms. This study level is represented by public and private institutions. Basic level students comprised 72.3% of all the students at all levels. In 2016–2017, 3,412,123 students were registered at this level, frequenting 19,565 schools (15,462 public schools; 4,103 private schools): 591,497 – in preschool institutions, 1,917,237 –

in primary schools, 903,389 – in secondary schools. The other education levels involve 642,383 students in preparatory schools; 433,580 in higher education institutions (Secretaría de Educación Pública, 2018).

The preparatory education system is divided into two types: propaedeutic and bivalent. The first one includes a general bachelor course and includes both state and private institutions. This bachelor program includes general student preparation and a program referring to specialist issues, such as humanistic knowledge. The bivalent bachelorship takes place in two forms: technical and professional-technical one. Both focus on laboratory practice, work in the industry, professional practice and social service outside of educational institution (Zhizhko, 2015b, pp. 93–103).

The Mexican Higher Education System is represented by 450 state and private institutions such as universities, autonomous universities, technological universities, technological institutes, research institutions, postgraduate education institutions, pedagogical higher education institutions, etc. All of these institutions are part of the National Association of Universities and Higher Educational Institutions (Asociación Nacional de Universidades e Instituciones de Educación Superior, ANUIES). Private higher education institutions are part of the Federation of Private Higher Education Institutions (Federación de Instituciones Mexicanas Particulares de Educación Superior, FIMPES) (Zhizhko, 2014, pp. 90–95).

Higher Education can be obtained in Mexico at state and private institutions, which prepare specialised workforce with high university degrees, bachelors' degrees, specialists, masters and doctors. Higher education institutions are active within the following fields: teaching, scientific, humanitarian and technological research, conservation and promotion of national Mexican culture and traditions.

Leading Mexican Universities, which include The National Mexican Autonomous University (Universidad Nacional Autónoma de Mexico), Iberoamerican University (Universidad Iberoamericana), Mexican College (Colegio de Mexico), La Salle University (Universidad la Salle), Metropolitan Autonomous University (Universidad Autónoma Metropolitana), and the Autonomous University of the State of Mexico have significant, positive influence on the development of Mexican education system, particularly higher education system. The leading place in this process belongs to the National Mexican Autonomous University.

In modern Mexico the educational politics focuses on building a national, cultural, educational camp, harmonizing both globalization and unique identity tendencies of advancement. Development tendencies of Mexican education system are as follows: non-clerical character, accessibility, university education reform, realization of postgraduate programs and development of scientific activities; democratization of education direction through equilibration of centralization and decentralization processes and participation of public organizations.

Today Mexican education face the challenge of adapting its contents and teaching methods to serve the students who enter the classrooms with numerous communication needs. It seeks to develop in the student the culture for peace through the social practices of language, so that the students can apply them in everyday life – just as they are carried out at school

Thus, in 2017 the *New Educational Model* of the Ministry of Public Education was launched (and retaken by the new 2018-2024 national government), which focuses on the new and relevant concepts to overcome the conditions in which it's prostrated Mexican education, seeks to "[…] transcend the model of learning through memorization and repetition, by a model of learning (and teaching) focused on *learning to learn*" (Secretaría de Educación Pública, 2017).

In the *New Educational Model* of 2017 the reorganization of the school is proposed in order to achieve the projected aims. Current working conditions are questioned - not only strictly labor-wise, but due to non-parallel training, diverse cultural origins and development, mixed interests, all manipulated by bureaucratic evaluation and control from central educational units. The strengthening of the adequate conditions for the professional development of teachers, managers and technical advisors is proposed, together with quality continuous training programs pertinent to the conditions, in which the specialists are teaching.

Complex thinking paradigm as a theoretical foundation of the education for peace

The renewed Mexican education system foresees, above all, the development of the peaceful culture among the students. The problem of education for peace advancement leads the Mexican pedagogical scientists to the analysis of the complexity of knowledge and scientific manifestations that point to the fact that there is no single logical truth. The concept of complexity has come to play

a transcendental role in the exact sciences, from mathematics to biology, as well as in complex disciplines such as fractal geometry, artificial life, complex network science, non-classical logic, thermodynamics of non-equilibrium, the science of chaos, the theory of catastrophes etc., recognizing, however, the social and human sciences as the most complex (Sotolongo, Delgado, 2006).

This new paradigm origins from the idea that knowledge is life itself and, at the same time, it's the most exciting, risky and dangerous of the acts or processes that living beings can carry out – as in order to live they are continually exploring the environment, building and betting on possibilities, risking their existence. Thus knowledge isn't something that is already there beforehand, but it's the very construction of living, it's a phenomenon that is created, not discovered, in common activities (complex networks) (Maldonado, 2014, p. 11).

Complex thinking comes to break with the Platonic-Aristotelian postulates about the hierarchies of knowledge and ways of knowing, establishing a worldview through the dialectical perspective. It questions the Cartesian ideal of absolute separation between the subject and the object of knowledge (or the study of the surrounding world from the outside) and recovers Kant's conception of the fusion of the subject and the object in the cognition of the world, of the active knowledge extraction (relation "the object doesn't exist without subject and the subject doesn't exist without object"), which leads to the study of the surrounding world being part of this world (Taeli Gómez, 2010).

From this perspective, as an episteme of education for peace, complex thinking points to democratization, horizontality of teaching (change of a subject-object relationship in the classroom to a subject-subject one).

In addition, this approach proposes a new notion of reality as a process, but not as a final "done", "finished", "given" entity; it reconsiders determinism, causality, prediction and the change in the form and ideal of what these notions presuppose; recognizes values as members of human cognition with the intention of overcoming the absolute separation between knowledge and values; demands responsibility as a constitutive element of the production of scientific knowledge; it values the dialectical units of the simple and the complex, chance, uncertainty, chaos, indeterminacy and emergence, the non-linear (Lipman, 1998; Delgado, 2004).

Complex thinking is configured under the principles of systematization and organization, hologramatics, retroactivity, recursion, autonomy-dependence, dialogue and reintroduction of the cognitive in all knowledge. Education based

on complex thinking equals determining the ways of learning in the sense that the complexity of a phenomenon lies exactly in the degrees of freedom exhibited by the phenomenon or system in question: the greater the degrees of freedom[2], the greater the complexity, or lower degrees of freedom and less complexity. A growing complex phenomenon is one that gains information, learns, or becomes non-linear (Morin, 1999; 2003).

Education can be seen as a *system of increasing complexity*, and not as a phenomenon focused on memory, teaching, programs, indicators, measurements, impact, skills, competitiveness, evaluations, criteria that characterize contemporary education. In this new understanding of education, the current main feature of its formal variant, institutionalization and severe structures is not inadmissible[3] (Maldonado, 2014, p. 17).

On the other hand, given that the objective of intentional education is the transformation of the structural behavior of individuals in accordance with the ideal of man corresponding to the socio-political and economic aspirations of each culture, this process cannot be rigid, predictive, but one that is approximate, tentative, open, adaptive (as a living system); teaching cannot cause learning, but rather condition it, determine it through uncertainty, chaos and disorders. In it, what the teacher teaches, is not a dogma: the investigation of the veracity of the knowledge acquired, is done by the student in practice (Morin, 2003).

It should be clarified that chaos and disorders in the educational process don't imply the recognition of an epistemological chaos or inability to act clearly in the world or construct the world subjectively; quite on the contrary, it involves the consideration of a dialectical perspective without contradictory relationships and linear interconnections.

---

[2] The concept of degrees of freedom originates in physics and calls a process of increasing indeterminacy or the increase of degrees of freedom in the dynamics of a phenomenon or system. Hence, complex systems are increasing complexities (Bar-Yam, 1997, p. 19).

[3] It regards education as a social institute, one of the substructures of society, a system that is composed of many interrelated elements: subsystems, management, organization, human resources, infrastructure, etc. Each educational system is characterized by its objectives, contents, plans and curricula properly structured taking into account the previous levels and providing the curricula for those who follow them. The pillar of the education system is its main goal, or the answer to the question: what expectations does the society have at a certain historical moment, regarding the man who is going to be formed? It exists in its three dimensions: social (education in the world, education in a certain region or country, etc.); of levels (basic, upper secondary, higher education); of profiles (special education, pedagogic education, university education, informal education, etc.) (Zhizhko, 2017, p. 42).

Education as a *growing complexity* consists in the unfinished and intrinsically open process of knowledge, nourishing itself with science and adapting to the "[…] new scientific era: the era of possibilities or probabilities in scientific matters […] the crisis due to uncertainties that they have taken the site of old certainties [...]", since "[…] the same physical laws, instead of expressing certainties today are said to express probabilities"(Tunnermann, 2001, p. 261).

In the *complex education for peace*, the student should not be considered as a disconnected abstract-ideal object, but as a subject from their real perspective, a concrete and contextualized social minimum related to the whole through the training process. This implies recognizing that in the student, the determined historical-natural process comes together – ultimately and materially. The current subject-student is no longer conceived as "a brick", "a screw of the economic machine", but as a relationship, a microsystem inserted in the social process (Maldonado, 2013).

Consequently, students should not be considered as objects, to whom the teacher imposes their power (knowledge, etc.), but as "[…]subjects who build contextually within a social structure, their own systems of ideas, knowledge, theories". According to the above, it can no longer be argued that knowledge "is transmitted". In addition, the "[...] non-existence of a subject-student-atom-linearity, allows to enhance critical thinking because one of the reasons for their non-development is the epistemological inconsistencies of the teaching-learning process" (Maldonado, 2014, p. 19).

On the other hand, education as a process of the social actors-subjects (concrete and contextualized social minimum) formation forces to admit the indivisibility of its three types: formal, non-formal and informal education, as well as the need for interrelation of educational public policies with economic and social policies.

Key competences for peace education

Educating for peace and pluralism regarding the concept of truth means developing in students the key competences[4] (interdisciplinary and supradisciplinary) that refer to the subject's ability to perform complex multi-

---

[4] In this case, the concept of competence is understood from the dialectic philosophy and neo-Marxism (Feu, 1984; Preescott, 1985), where competency education seeks, above all, the integral development of the student's personality (Zhizhko, 2017, p. 31) (unlike the neoliberal term "competition", according to which the teaching aims to increase the student's competitiveness).

functional, multidisciplinary activity, appropriate to the requirements of society and times; effectively solve current individual and social problems.

One of them is the *domain of complex and multidisciplinary thinking*, which represents integrating the two perspectives: quantitative and qualitative; the analytical leap from the local to the global, from the micro to the macro, from the theoretical to the practical, from the inductive to the deductive; acting intelligently imagining possibilities, devising outstanding scenarios and conceiving significant alternatives. Understanding the complexities and uncertainties that surround us requires analytical intelligence, intellectual curiosity, ability to go beyond intuition or simple common sense.

From the point of view of Canto-Sperber and Dupuy (2004), "[...] being complex is being able to become more complex" (Canto-Sperber, Dupuy, 2004, p. 149). This competence requires certain capacities for the understanding of past events and the visualization of future trends; but also for the management of really complex situations, such as environmental conservation and sustainable development. It's indisputable that addressing these problems and challenges doesn't require having routine and regulatory skills that only seek to apply rules; instead, another type of more complicated and multidisciplinary capabilities is essential for efficient performance in everyday and professional life (Zhizhko, 2017).

Likewise, it's important to *know how to handle and solve problems and conflicts*, which means combining "[…] various cognitive and motivational processes that are orchestrated to achieve a specific goal, that could not be achieved solely with the application of a known routine or algorithm" (Hersh-Salganik, 2004, p. 58). It also represents "[…] producing behavioral changes that allow […] to prevent conflicts and violence, both obvious and structural violence; resolve conflicts peacefully; and create conditions that lead to peace, both at interpersonal, intergroup, national or international levels"(UNISEF, 2015).

The ability to handle and resolve problems and controversies implies:

- perceiving and understanding the different positions, negotiating disputed interests in order to accept bilateral solutions;
- running democratically in groups, reaching agreements over cultural contrasts, developing union strategies, etc.;
- being able to analyze the issues that are at stake, the origins of the conflict, the reasons of both sides and the attempts at reconciliation that have failed, as well as building negotiated orders over cultural differences (Perrenoud, 2008, p. 131).

It is also essential to learn to *live in a diversified and multicultural world*. The necessary condition to achieve fruitful coexistence in a multicultural society is to create such scenarios that help the new intercultural identities and values within the framework of existing configurations of power be conceptualized through different cultural resources overcoming the confines, transgressing the limits to know the otherness in its own sense, creating "an area outside the border", establishing the intercultural mechanisms of formation of the socio-cultural experience of the individual. Likewise,

> Pedagogies that bet on the transformation and construction of a peace culture promote changes in the way people relate to people and groups, through social justice practices that include fair relations, tolerance, inclusion, respect for human rights in all spheres, mediation, interpersonal and intercultural meetings, etc. Likewise, they integrate their own experience with reality, stimulate the transformation and overcoming of the violence transmitted from generation to generation, and promote peaceful and creative ways to transform conflicts, analyze them, establish a dialogue, debate with respect, cooperate, arbitrate, recognize own interests and needs and the interests and needs of others; among many other practices and capacities (Office of the High Commissioner for Peace, 2017, pp. 18–24).

In this process, the following are essential: the communication understood as dialogism, collective reflection, sharing, participation, inclusion, as well as a new look at the Other and the approach to the understanding and uses that is adopting in a society where new identities and forms of inclusion/exclusion are constantly created due to globalization and technological development: the connected and the disconnected; the wealthy and the vulnerable; the integrated and the excluded; those, who follow social norms, and the marginalized.

Undoubtedly, educational communication that involves new social practices of language is the essential component for the construction of a culture for peace in the student. In the new educational paradigm (complexity education), educational communication is conceived as a new scientific perspective, which term prefigures the academic field of research and practice of the processes of production, transmission, processing and acquisition of information, namely the learning processes.

Educational communication goes far beyond the means of teaching-learning, for all communicative action in spaces is carried out with the objective of reproducing or developing educational ecosystems. With this it is understood that the acquisition, for example, of a language (mother or foreign)

is linked to the subject's communicative interpellations giving a sociocultural sense to its domain.

In the words of Kaplun (1992), "[…] communication can be understood as interaction, exchange, dialogue, as life in society, all this is inextricably related to the productive needs of the subject and cannot exist without language. Communication is shared thinking" (Kaplún, 1992). As this author mentions, the communication is directed, planned and controlled. It's planned because, first, what message will be constructed is conceived; it is directed because this process is not of spontaneous, but rather organized and structured nature; and it's controlled because its effects can be measured and in order to improve them, interaction is feasible.

If these characteristics of the communication are related to the oral capability in the language, it can be expressed then that it is possible to create components to involve student in a certain oral production. That implies a set of peculiarities such as the use of the cult norm to make that communication much more accurate and thus ensure that students produce in oral activity and calculate the effects, so that the communication skills that should characterize them are appropriate and put into practice.

Social practices are constituted by the different uses of language that allow students to employ oral or written communication: receive, transmit and use the information; representation, interpretation and understanding of reality; the construction and exchange of knowledge; the organization and self-regulation of thought; emotions and behavior, among others. These change over time: the way of communicating through oral language is different from that used by our grandparents, likewise, the forms of written communication through electronic media were transformed in an extraordinary way.

Similarly, linguistic social practices face the challenge of overcoming the traditionalist practices of knowledge transmission based on the its repetition, so that students will be taxed memorially without looking for them to find a way to acquire information as they understand it best. With the use of these practices, one of the basic purposes of teaching is not fulfilled, namely the aim to develop communication skills that allow the student to express thoughts, emotions, experiences and opinions; to establish a dialogue and resolve conflicts; to form a critical judgment; generate ideas and structure knowledge; give coherence and cohesion to the discourse; enjoy the aesthetic use of language; finally, to develop self-esteem and self-confidence.

Following Sánchez-Pérez, Vázquez-Fernández and Hernández-Torres (2006), there are four dimensions in linguistic competence, which cover the notion of an ideal communicative situation for language acquisition (mother or foreign):

- Linguistic grammatical competence: the didactics of the language must attend to the mastery of the linguistic structures of the language in a gradual, systemic way, favoring the student's ability not only to dominate the reality, but also to extract it from the previous knowledge that they possess regarding the different linguistic structures that reintegrate the system until the creation of a coherent whole of communicative intention is achieved.
- Sociolinguistic competence: linguistic activity is eminently social and it is this characteristic that establishes a restrictive use of the communication process, depending on the communicative situations in which it operates.
- Discursive competence: phrases with a basically denominative function within the constructive levels of the text: prayer.
- Strategic competence: it is related to the student's ability to develop the communication strategy to start, continue and complete the communication process. The student is able to fulfill a given communicative function and thus develop the ability to understand, analyze and recreate the text in favor of the development of communicative competence (Sánchez-Pérez, Vázquez-Fernández, Hernández-Torres, 2006, pp. 1–6).

On the other hand, developing in the student the skills necessary for living in a diversified and multicultural world, helps the border pedagogy of Giroux, whose main concept is *transgression*: a certain existential state of the person in the educational process conditioned by the changes that the individual achieves in the internal identification determinants and extension of their own experience by including another socio-cultural and semantic fields in it. Transgressive progress creates new horizons of knowledge, opens the possibility of choosing different forms of further development and resembles the bifurcation (branching) process (Giroux, 1997).

Giroux calls *boundaries of dominion* to those limits that must be transgressed, challenged and redefined, creating the intercultural mechanisms of the individual's socio-cultural experiences formation (Giroux, 2005). With

the support of border pedagogy, the student "overcomes the confines", violates the limits to know and understand the Other, acts in the *area outside the border*, internalizes intercultural values, creates new identities.

Another key competence for the development of peace culture in the student is to *act intelligently*. It includes the ability to imagine possibilities, devise outstanding scenarios and develop meaningful alternatives which must constitute a constant pattern of the individual. Analytical intelligence is identified with the widespread idea of intellectual curiosity, that is with the ability of people who go beyond intuition or simple common sense to understand both the complexities and uncertainties of the current moment, and the unpredictable of the dominant economic world. It implies:

- Generating and justifying the of ideas by transforming them into practical actions;
- Using creativity, knowing how to plan, set goals;
- Analyzing the information;
- Making decisions and solving problems;
- Thinking systemically, focusing on the result;
- Having analytical skills and organizational capabilities;
- Knowing how to organize one's own time;
- Teamwork;
- Delivering quick and adequate answers; acting with determination, strategy;
- Mastering the formal verbal and written language; making use of technology; possessing the culture of communication (Zhizhko, 2017).

Following the Mexican pedagogues, the development of the culture for peace in the student facilitates a series of competences, each of whom ensures mastery of certain facets of human behavior, leading the student to a new perception of the surrounding world, of the Other, and allowing them to achieve a new position in the wake of everyday events based on logical pluralism and interculturality.

Conclusions

Undoubtedly, the education is the key factor in building harmonious human relationships based on the principles of peace, tolerance, respect for the Other, protection of the environment, compromise with oneself and with

others. But this fact, the educational models that have operated within the Mexican education system so far, cannot satisfy these demands, which impose reality to the 21st-century man.

According to the Mexican pedagogues, structural changes are required, even in the conception of education as a socio-cultural phenomenon. Instead of being a key social institute, which "molds" the subject according to the socio-political and economic pretensions of the group in power, the education must become the increasing complexity with subject-subject relationships in the classroom, where knowledge is not "deposited" in the empty student-recipient, but rather is conditioned and stimulated by its acquisition, thus promoting creativity, critical thinking and the student's autonomous work.

Building a culture for peace means bringing a halt to thinking about education as something impersonal and objective (what "represents the set of everything we need to know"), and starting to create contextualized and individualized educational content (that "for what one should know"); to build vertical education, without hierarchies and positions, with respect to the dignity of the subjects of the educational process, with flexible curricula, considering the fundamental role of imagination, fantasy, play, the meaning of emergencies; following the new educational ideal: a free, innovative, reflective and self-reflective, critical, plural human being capable of self-training, self-organization, living in the multicultural environment, reconsidering the meaning of difference, being sensitive to the experience of the Other.

Achieving the culture for peace from education, is only possible by developing a new type of teaching that guides the student to understand the perplexities and fluctuations of the moment through the development of their intellectual curiosity and analytical intelligence, their ability to find not-standardized solutions, alternatives to problems, as well as their aptitude to assimilate the discourse of others, reconsider their own discourse, eliminate prejudices, find the ability to empathize. In addition, it is necessary to teach the student to assume responsibilities, to be precise, not to give their opinion in a generalized way, to be transparent and to act in a natural way, to know how to listen actively, to accept criticism in a constructive and non-destructive way, and to become aware of their own attitudes.

Abstract: This article exhibits the results of a documentary-bibliographic pedagogical study, whose goal was to present the general panorama of the evolution of the epistemological and institutional foundations of the education for peace and its promotion in Mexico. The author found that a complex thinking paradigm constitutes the theoretical foundation of the education for peace; according to it the education must become increasingly complex, with subject-subject relationships in the classroom where knowledge is not "deposited" in the empty student-recipient, but rather is conditioned and stimulated by its acquisition, promoting creativity, critical thinking, the student's autonomous work. In the Mexican education system, a culture for peace is being raised in the student through the development of their intellectual curiosity and analytical intelligence, their ability to find not-standardized solutions, alternatives to problems, their ability to assimilate the discourse of others, rethink their own discourse, eliminate prejudices, be able to empathize, to listen actively, to accept criticism in a constructive and non-destructive way, be capable of self-training, self-organization, being sensitive to the experience of the Other.

Keywords: Mexican education system; education for peace; epistemological foundations of the education for peace; complex thinking paradigm; key competences for peace education

Streszczenie: W tym artykule przedstawiono wyniki badań pedagogicznych dokumentalno-bibliograficznych, których celem była ogólna panorama ewolucji epistemologicznych i instytucjonalnych podstaw edukacji na rzecz pokoju i jej promocji w Meksyku. Autor stwierdził, że teoretyczne podstawy edukacji na rzecz pokoju jest złożonym paradygmatem myślenia, zgodnie z którym edukacja musi stać się coraz bardziej złożoną relacją podmiot-przedmiot w klasie, gdzie wiedza nie jest „deponowana" u pustego ucznia-odbiorcy, ale jest raczej uwarunkowane i stymulowane przez jego nabycie, promowanie kreatywności, krytycznego myślenia, samodzielnej pracy studenta. W meksykańskim systemie edukacji buduje się kulturę pokoju u ucznia poprzez rozwijanie jego intelektualnej ciekawości i inteligencji analitycznej, jego umiejętności znajdowania niestandardowych rozwiązań, alternatyw dla problemów, jego zdolności do asymilacji dyskurs innych, poznaj swój własny dyskurs, wyeliminuj uprzedzenia, umieć wczuć się, słuchać aktywnie, akceptować krytykę w sposób konstruktywny i nieniszczący, być zdolnym do samokształcenia, samoorganizacji, wrażliwości do doświadczenia Innego.

Słowa kluczowe: meksykański system edukacji; edukacja na rzecz pokoju; epistemologiczne podstawy edukacji na rzecz pokoju; złożony paradygmat myślenia; kluczowe kompetencje w edukacji pokoju

References

Bar-Yam, Y. (1997). *Dynamics of Complex Systems*. Boulder: Westview Press.

Canto-Sperber, M., Dupuy, J. (2004). *Competencias para una buena vida y una buena sociedad*. In: Dominique Simone Rychen, Laura Hersh Salganik (eds.). *Definir y seleccionar las competencias fundamentales para la vida* (128–169). México: Fondo de Cultura Económica.

Delgado, C. (2004). *La importancia política de las cosas pequeñas*. Ponencia presentada en el Panel de Clausura del Evento Complejidad. Cuba: La Habana.

Feu, J. (1984). *Towards a competence-based system*. London: University Press.

Giroux, H. (1997). *Cruzando límites. Trabajadores culturales y políticas educativas*. Barcelona: Paidós.

Giroux, H. (2005). *Pedagogía crítica, estudios culturales y democracia radical*. Madrid: Popular.

Hersh Salganik, L. (2004). *Competencias para la vida: un reto conceptual y empírico*. In: Dominique Simone Rychen, Laura Hersh Salganik (eds.). *Definir y seleccionar las competencias fundamentales para la vida* (47–73). México: Fondo de Cultura Económica.

Kaplún, M. (1992). *A la educación por la comunicación: la práctica de la comunicación educativa*. Santiago de Chile: UNESCO, OREALC.

Lipman, M. (1998). *Pensamiento Complejo y educación*. Madrid: Ediciones de La Torre.

Maldonado, C. (2013). *Significado e impacto social de las ciencias de la complejidad*. Bogotá: Ediciones Desde Abajo.

Maldonado, C. (2014). ¿Qué es eso de pedagogía y educación en complejidad? *Intersticios Sociales*, No. 7, 1–23.

Morin, E. (1999). *Los siete saberes necesarios a la educación del futuro*. París: Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura UNESCO.

Morin, E. (2003). *Introducción al pensamiento complejo*. Barcelona: Gedisa.

Office of the High Commissioner for Peace / Oficina del Alto Comisionada para la Paz (2017). *¿Qué es educar y formar para la paz y cómo hacerlo? Educación y Pedagogía para la Paz. Material para la práctica*, Bogotá (Colombia), septiembre de 2017, 18–24.

Ornelas, C. (1995). *El sistema educativo mexicano. La transición de fin de siglo*. México: Fondo de Cultura Económica.

Pérez-Viramontes, G. (2018). *Construir paz y trasformar conflictos. Algunas claves desde la educación, la investigación y la cultura de paz*. Tlaquepaque, Jalisco: ITESO.

Perrenoud, P. (2008). *Diez nuevas competencias para enseñar*. México: Editorial Colofón.

Preescott, C. (1985). *Creación de ambientes de aprendizaje*. Retrieved from: www.egs/deshare.net (06.11.2018).

Sánchez Pérez, A., Vázquez Fernández, M., Hernández Torres, I. (2006). La comunicación oral, sus características generales. *Ciencias Holguín*, vol. XII, no. 2, 1–6.

Secretaría de Educación Pública, Subsecretaría de Planeación, Evaluación y Coordinación Dirección General de Planeación, Programación y Estadística Educativa (2018). *Estadística del sistema educativo México. Ciclo escolar 2016-2017*. México: SEP.

Secretaría de Educación Pública, Subsecretaría de Planeación, Evaluación y Coordinación Dirección General de Planeación, Programación y Estadística Educativa (2017). *Nuevo Modelo Educativo. Resumen Ejecutivo*, México: SEP.

Sotolongo, L., Delgado, C. (2006). *La revolución contemporánea del saber y la complejidad social: Hacia unas ciencias sociales de nuevo tipo*, Buenos Aires: CLACSO.

Taeli Gómez, F. (2010). Creación de nuevas relaciones posibles. El nuevo paradigma de la complejidad y la educación: una mirada histórica. *Polis Revista Latinoamericana*, no. 25. Retrieved from: https://journals.openedition.org/polis/400 (19.04.2019).

Tunnermann Bernheim, C. (2001). *Universidad y sociedad. Balance histórico y perspectivas desde América Latina*. Managua: Hispamer.

UNISEF (2015). *Focus peace education*. ONU-UNISEF. Retrieved from: https://www.unicef.org/spanish/education/focus_peace_education.html (25.06.2019).

Zhizhko, E. (2014). Psychological and educational aspects of P. Freire's pedagogy and its implementation in the training of professionals in Latin America. *Scientific Journal Comparative Professional Pedagogy*, vol. 4, no. 1, 90–95.

Zhizhko, E. (2015a). *Professional education of marginalized populations of Mexico and Venezuela: its formation and development*. Kherson: Grin D.S.

Zhizhko, E. (2015b). The background and development of Mexican educational system: the main features. *Labor et Educatio*, no. 3, 93–103.

Zhizhko, E. (2017). *Enseñanza por competencias: enfoque histórico-cultural*. México: Pearson.