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LA EDUCACIÓN ALIMENTARIA Y NUTRICIONAL EN LA FORMACIÓN DOCENTE. DOS VISIONES, DOS UNIVERSIDADES, DOS PAISES Y UN COMPROMISO: PERÚ- VENEZUELA

*Food and nutrition education in teacher training. Two visions, two universities,
two countries and a commitment: Peru-Venezuela*

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RESUMEN

El presente trabajo expone desde el punto de vista descriptivo-comparativo las visiones y propuestas en el campo de la formación docente en Educación Alimentaria y Nutricional (EAN), por parte de la Universidad Nacional de Educación “Enrique Guzmán y Valle” (UNE-EGyV) Perú y la Universidad Pedagógica Experimental Libertador (UPEL) Venezuela. Para ello se describe un panorama comparativo de los principales indicadores de salud propios y en el marco de América Latina señalado por la OMS y las principales propuestas para la región donde la escuela se constituye en el escenario primordial para educar en salud. En segundo lugar, se describe la propuesta de UNE-

EGyV para la formación docente en EAN, su base jurídico-curricular, áreas de formación, estructura y administración curricular, competencias, generales y específicas, y los abordajes didácticos-evaluativos asumidos para las diferentes carreras teniendo como eje de coordinación las facultades que la integran. En tercer lugar, se presenta la propuesta de la UPEL, con énfasis en el Nivel de Educación Inicial, donde la formación docente se basa en un currículo por competencia de acuerdo a lineamientos internacionales (proyecto Tunning y UNESCO) y nacionales, que asumen la educación como un proceso de formación continuo y permanente; se señala su estructura-administración curricular, la extensión, el servicio comunitario y la investigación como apoyo al currículo. Al final se generan líneas de reflexión entre estas dos visiones donde se destaca el compromiso y valor de la Educación en la formación de recursos humanos y señala un camino para unir esfuerzos en Latinoamérica.

Palabras clave: Salud, alimentación y nutrición, formación docente, currículo por competencias, educación universitaria, educación comparada, políticas públicas.

ABSTRAC

This work expose, form a descriptive-comparative point of view; the sights and proposals in the field of teaching training on Feeding and Nutritional Education (FNA) of the National University on Education "Enrique Guzmán y Valle" (NUE-EGyV) on Perú, and the Experimental Pedagogic University Libertador (UPEL) on Venezuela. For this, is described a comparative outlook among the leading indicators of health; owns, they were pointed out by the OMS on Latin America's scheme and, the principal approaches on Healthy education by the region. Where the School is the main stage. Secondly, its described the NUE-EGyV's proposal by teaching training on FNA; its juridic-curricular base, formation areas, its structure and curricular administration, its general and specific proficiency, and its evaluative didactic approaches, use it by each career, using how coordinaion axis faculties integrate itself. Thirdly, its present the EPUL's approach, emphasizing in the level of Initial education. Where, teaching formation is based on a proficiency curriculum following international (Tunning and UNESCO project) and national guidelines, that assume the education as a continuous and permanent training process; It was pointed its curricular structure-administration, its extension, community service and investigation as curricular support. At the end, is generated reflexive lines between those vision, where it is highlight them compromise and value of the Education, on the development of human resources and pointing a way to join forces in Latin America.

Keywords: Health, food and nutrition, teacher training, competency curriculum, university education, comparative education, public policies.

1. INTRODUCTION

The changes that have recently emerged in education, both in the national and international context, have been manifested through the emergence of different paradigms in the existing social sciences, as well as in the ways of conceiving theory, curricular praxis and - in our case - teacher training, in which it must be clear that the substitution of contents, techniques and methodologies alone do not allow for the transformation or improvement of educational action.

In this scenario, a proposal for constant reflection is reflected in Food and/or Nutrition Education, which constitutes a pedagogical strategy for the promotion of adequate and healthy nutrition, and presupposes articulated and permanent processes of problematisation, reorganisation of values, ideas, attitudes, beliefs, generation of autonomy, differentiated from the information and communication strategies traditionally proposed in health issues. In a world like the present, in which health is so important, the educational approach to the concepts that are handled about it and especially in food education in the context of Latin America, due to its current social, cultural, economic and political landscape, has considerable repercussions, as it means different actions and planning around food and nutrition education, especially in teacher training.

In this sense, this paper addresses two visions and scenarios of teacher training in the framework of Food and Nutrition Education (EAN) by the Universidad Pedagógica Experimental Libertador (UPEL-Venezuela) and the Universidad Nacional de Educación "Enrique Guzmán y Valle" (UNE-EGyV-Peru). Through which they respond to their particular educational scenarios and pedagogical models of teacher training, but at the same time share commitments on this problem and generate relevant contributions that can generate resonance to other universities in Latin America and the Caribbean in response to the serious crisis in malnutrition, morbidity and mortality and chronic diseases that affect our countries. For this reason, education and the training of teachers is a priority for the development of our countries.

2. METHODOLOGY

The research uses a qualitative approach. This type of approach allows the study phenomenon to be investigated by understanding its characteristics (Botero et al, 2019). Likewise, the qualitative approach allows to deepen the relationships and processes that cannot be identified by the quantitative approach from the perception of the actors involved (Maxwell, 2013). The present methodology, therefore, aims to review relationships, differences and the point of view from the research being considered (Flick, 2017). The article uses the exploratory type of research. Exploratory research contributes to the discernment and prioritisation of the total or some content that addresses the problem to be investigated (Acevedo-Gutiérrez et al, 2019; Bretschneider et al, 2017; Stebbins, 2001). For these reasons, researchers have developed topics related to food education in teacher education in their respective institutions.

Additionally, the comparative approach assumed here, typical of social studies under qualitative methodological perspectives (Piñero & Rivera, 2013), aims to search for similarities and dissimilarities, given that the comparison is based on the criterion of homogeneity with a horizontal deployment and for interpretative purposes (Tonon, 2011; Piovani & Krawczyk, 2017). It is the identity of the element or object of comparison, the EAN curriculum unit, which legitimises the comparison on the basis of its status or global properties. This approach has allowed us to confront its structures or stated elements - at the present time - as a complex system. The description-analysis presented here has followed the axes foreseen in the design, taking each case separately and arriving at the following considerations.

3. OUR FOOD SITUATION. EDUCATION FRAMEWORK FOR ACTION

The epidemiological profile in general, according to international organisations, which have characterised the Latin American and Caribbean (LAC) region in the last decade, although with variations between countries, is marked by endemic and epidemic infectious diseases of masses, emerging and re-emerging; non-infectious diseases in clear ascent; by an epidemic of violence and injuries; and by another epidemic of mental illness closely linked to alcoholism and other addictions, all within a framework of hunger, silent and silenced nutritional deficiency coexisting with overweight, obesity and obesity; and by another of mental illness closely linked to alcoholism and other addictions, all within a framework of hunger, silent and silenced nutritional deficiency coexisting with overweight, obesity and poverty; in other words, by a rather quintuple burden of disease with a socio-natural-structural-economic-political cause, all in a context of ecological deterioration, of marked environmental abuse, with evident consequences for health as expressed by the Covid-19 phenomenon.

Specifically, non-communicable diseases, such as heart disease, cancer and stroke, are the leading causes of death in the Americas. Across the region, the mortality rate for non-communicable diseases is 427.6 persons per 100,000 population, seven times higher than the mortality rate for communicable (infectious) diseases, at 59.9 persons per 100,000 population. With regard to risk factors, about 8 per cent of newborns in the region have low birth weight (less than 2,500 grams/5.5 pounds). Chronic undernutrition affects 10% of children under 5 years of age, and 6% of children in the same age group are overweight (2012 data). Rates of overweight and obesity are high among adults in the Americas: in 2016, 64% of men and 61% of women were overweight or obese. In addition, 39% of adults do not get enough physical activity. High blood pressure affects 21% of men and 15% of women in the Region (latest available data from 2015), while diabetes mellitus affects 9% of men and 8% of women (Pan American Health Organization, 2018).

In the specific case of Peru, there are indicators that still need to be improved in relation to nutritional status. For example, 12% of children under 5 years of age are chronically undernourished. Likewise, adolescents aged 10-19 years increased from 10.9% in 2014 to 18.5% in 2018 (United Nations International Children's Emergency, 2019). In addition, 18.6% of Peruvian pregnant women are anaemic and 44% are

overweight (National Institute of Health, 2020). In this context, one of the factors contributing to behavioural changes in eating habits is education. The school is the place where educational content is developed with the aim of changing bad eating habits and achieving healthy eating (Vio et al, 2014). But it is the teacher who executes the pedagogical activity generating meaningful learning (Paakkari et al, 2015).

On the other hand, in the case of Venezuela, the situation is expressed in high levels of malnutrition (from excess to deficit) [ENCOVI, 2017-2018], increased to 51% by 2015, and in mortality rates associated with chronic non-communicable diseases (NCDs) and reported in the mortality yearbook for Venezuela by the Ministry of People's Power for Health (2015): cardiovascular diseases (20.6%), Cancer (15.4%), cerebrovascular (7.4%), and diabetes (7.6%). This is in addition to overweight and obesity: 27.44%, deficits: 14.68% (children aged 7-12 years) and 54.95% and 3.51% respectively in adults (18-40 years). Sedentary lifestyle is 49.54% (children 7-12 years) and 42.94% in adults. This shows that the Venezuelan population has a major nutritional problem, where the main components that condition it are: the socio-demographic environment, inadequate eating habits and physical inactivity mainly (National Institute of Nutrition, 2015).

For this reason, the World Health Organisation (WHO) points to a wealth of scientific evidence that highlights: (a) unhealthy diets, physical inactivity and smoking are confirmed risk behaviours for chronic diseases, (b) it is well established that hypertension, obesity and dyslipidemias are risk factors for coronary heart disease, stroke and diabetes, (c) major biological and behavioural risk factors emerge and act early in life and continue to have deleterious effects throughout life, (d) major risk factors can continue to affect the health of the next generation, (e) some preventive interventions, such as targeted educational programmes, at an early stage of life, can have a significant impact on the health of the next generation, (f) some preventive interventions, such as targeted educational programmes, can have a significant impact on the health of the next generation, (f) prevention through diet and physical activity is a complementary strategy that delays the progression of existing chronic diseases and decreases the mortality and disease burden caused by these diseases, (g) a combination of physical activity, food diversity and broad social interaction is probably the most appropriate lifestyle profile to optimise health, resulting in increased longevity and healthy ageing (WHO, 2003).

In the context of the above, the turning point is constituted by, among others, the following agreements: the Alma-Ata declaration "health for all" (1978-WHO); the Ottawa conference "principles for health promotion" (1978-WHO); the Jakarta agreements "determinants of health" (1997-WHO); the Millennium declaration (2000-UN); the Bangkok charter on health promotion (2005-WHO); the agreements for the promotion of fruit and vegetable consumption (2005-WHO); the regional strategy and plan of action on nutrition and development (2006-WHO); the declaration on the right to adequate food (2007-FAO), the global strategy for the prevention and control of chronic diseases (2008-WHO), the Ministerial conference on healthy lifestyles (2011-PAHO), the ORAS resolution on the prevention and control of NCDs (2011-PAHO), the Mercosur

agreement for a trans-fat-free America (2008-PAHO), the LAC food insecurity overview (2015-FAO), the agreement to combat obesity (2015-WHO), the food security plan (2015-CELAC), and the guideline on sugars intake (2015-WHO), among others.

These documents generate a set of proposals by international organisations and the agreements signed by our countries in terms of: food security, health promotion, child care and protection, advertising and marketing, education, investment in food production, millennium goals, among others, which do not materialise in the context of our social realities in the field of health-food-education, although diverse, are recognised to be shared with the phenomena of malnutrition, overweight-obesity, sedentary lifestyles and the prevalence of chronic non-communicable diseases, which constitute worrying situations in terms of public policies in different countries and at different scales (regional - national - local - community - family - individual). This has - in our opinion - a framework of enormous responsibility that must be evidenced with greater relevance in the day-to-day comprehensive training of our children and that our universities must assume with greater ownership, the training of specialised human resources, particularly in teaching at the different levels and modalities of the education system, with special attention to childhood (De La Cruz, 2016).

In support of the above, the Global Strategy on Diet, Physical Activity and Health (WHO, 2004), among others, stands out. This addresses two of the main risk factors for Chronic Non-Communicable Diseases (NCDs), diet and physical activity, and is based on the recognition and concern for the problem and its impact on the economic, social and cultural levels in the world. Furthermore, in 2006, the WHO mandate to use schools as a means of strengthening health promotion, in this framework the promotion of healthy food and nutrition, thus seeking to improve the health of students, families and all members of the community (WHO, 2006). For this reason, the school is the ideal and most responsible place for the achievement of comprehensive health and the consolidation of habits that improve the quality of life, because the school is the primary setting for health education and becomes an agent of it, by directly influencing the knowledge and understanding of the conditioning factors of individual-collective well-being and health, where the teacher's professional training and the development of his or her competences constitute a responsibility for teacher training institutions and become more relevant in the current scenarios our countries are going through, especially in the framework of Food and/or Nutrition Education.

4. FOOD EDUCATION IN TEACHER TRAINING: THE CASE OF UNE-EGYV-PERU

Food is one of the essential necessities of life and is affected by the cultural, social and economic context. In addition, the political factor is one of the axes that contributes to the use of resources for adequate nutrition. In Peru, food education is considered in a political framework (Portocarrero et al., 2020) and is communicated in the second objective of the National Agreement (2002). In relation to the National Agreement (2002), the document expresses the need to train and educate the population in healthy eating. It also promotes the inclusion of educational content on healthy eating in the programmes of the Peruvian education system.

In relation to Peru's political stance on healthy eating, Law 30021 considers that within the framework of curricular diversification, teachers should develop educational content that promotes healthy eating. Along the same lines, the "Universidad Nacional de Educación" "Enrique Guzmán y Valle" (UNE-EGyV), considers within its curriculum based on objectives, four areas that will contribute to the professional training of the future teacher: the area of knowledge, the area of pre-professional practices, the area of activities and the area of research.

Regarding the areas of professional training, in the first one we have: general training, pedagogical training and specialised training. In the second area, there are four classroom placements, one in the educational institution (administration and management) and the last one in the community. The third area considers four subjects called activities. Finally, the fourth area develops five subjects. The food education course is considered within the general training (knowledge area). It is developed in the third cycle and in the seventh cycle (restructured R. N° 0917- 2006-R- UNE) of the professional career. This course has 2 credits. It is also structured in one hour of theory and two hours of practice. The study plan is valid until the 2019 promotion. The purpose of the course is to re-evaluate nationally produced food, to consider the food culture and the nutritional value of nationally produced food, making different nutritious and balanced mixtures for food and nutrition in the life cycle, as well as to develop educational projects for healthy eating.

In line with the changes in the pedagogical proposals, the UNE. EGyV, considered the general guidelines of the University Law N° 30220, with the purpose of promoting quality vocational training, developing labour competences and entrepreneurial skills, responding to the needs at local, regional and national level. The consequence of this change was the implementation of the competency-based curriculum (Resolution 1220-2020-R-UNE). The university's competency-based curriculum is divided into generic competences, specific competences and specialised competences.

The generic or general study competences contribute to the construction of knowledge and the capacity for communication and correct reasoning through natural language and logical and graphic language. The specific competences or professional training are aimed at mastering the knowledge of the areas of knowledge of the speciality and the knowledge of pedagogy. And the specialised competences or specialised studies apply the knowledge of pedagogical, didactic and technological sciences in the planning of technical pedagogical instruments for the training of learners at different levels and in different modalities, as well as for technological transfer.

In this new curriculum, the Food Education course is developed in the third cycle of the professional career. It has 2 credits in the curriculum. Likewise, the course is divided into one hour of theory and two hours of practice. It is offered in all the professional careers offered by the university through the faculties of education (Agriculture and Livestock and Nutrition, Science, Technology, Social and Humanities, Initial Education and Pedagogy and Physical Culture) and the faculty of Business Sciences. The course

is attached to the Faculty of Agriculture and Nutrition, which aims to serve all faculties of the university. The purpose is to impart knowledge to form habits and attitudes that promote healthy eating in the family environment and in the workplace according to the cultural context, through the professional career of education (in the education system) and in professional careers that do not belong to the area of education.

At present, the National University of Education teaches the food education course in the seventh cycle of the professional career. The students are male and female. Their ages range from 18 to 31 years (National Institute of Statistics and Informatics, 2018). In addition, the students belong to the faculties of education and business from the 2015, 2016 and 2017 graduating classes (see Table 1). The students come from different regions of Peru (Cuenca, 2015). Those students who do not live in Lima have to rent a house in the vicinity of the university. Students are also responsible for the costs of their studies and living expenses.

Table 1. Total number of students in the faculties of the National University of Education "Enrique Guzmán y Valle" (Peru)

Faculties	Year		
	2015	2016	2017
Business sciences	1235	1072	851
Science	937	1057	1690
Agriculture and Nutrition	725	807	946
Initial Education	830	1013	1273
Pedagogy and Physical Culture	1289	1587	2032
Social Sciences and Humanities	1807	1930	2210
Technology	1364	1449	1604

Source: Adapted from "Transparencia Universitaria de la Universidad Nacional" de Educación Enrique Guzmán y Valle (2020). Taken from <http://www.une.edu.pe/transparencia-universitaria/alumnos-facultades-estudios/>

Cooperative learning is one of the characteristics of students' learning style that has been observed in the food education course. Cooperative learning allows not only to enhance individual learning but also peer learning (Bustamante, 2017). Students in the course use resources not only for their individual learning but also for the enhancement of their peers' learning. During the application of group work the group leader motivates and suggests routes that facilitate the acquisition of course content for their peers.

On the other hand, evidence taken from Alarcón et al. (2019) in relation to the learning style of the students of the university of education "Enrique Guzmán y Valle" shows that metacognitive strategies, information processing and contextual strategies are the most used. For the food education course, the variety of student profiles leads us to the reflection that the metacognitive strategy is executed by a group of students mainly when they face the individual activities proposed by the course. However, the

contextual strategies have an impact on the acquisition of the contents proposed in the syllabus.

The teachers who teach the food education course at UNE. EGyV have a Bachelor's degree in Education with a specialisation in Food Education. In addition, the UNE. EGyV considers teachers with a degree in Food Industry and/or Food Industry and Food Education. The selected university teachers come from the Faculty of Agriculture and Nutrition of the UNE. EGyV. The selected teachers are also characterised by the fact that they work in regular basic education. In addition, a criterion to be considered in the selection of teachers is the Master's degree. One or two professors appointed from the Faculty of Agriculture and Nutrition are part of the teaching staff. In semesters 2019-I and 2020-I, eight professors have been requested to teach the food education course.

In line with Zabalza (2003), the performance of the food education teacher is considered on the basis of the following competences: planning, didactic content treatment, communicative, methodological, relational and tutorial. We consider these competences as those that contribute to the good performance of teachers. These criteria are also taken into account during teacher evaluation.

The time dedicated to teaching is 32 academic hours. The academic load is 16 teaching hours and 16 non-teaching hours. The contract time is one academic period (April-July). The teaching hours are for the purpose of teaching in the different faculties of the university. The non-teaching hours consist of class preparation, student support, administrative functions and meetings with the teaching team of the food education course. The meetings of the teaching team help to improve the teaching and learning process of food education. The meetings are held once a week in one of the university's rooms or virtually. The virtual meetings, characterised in the 2020-I semester, were held on google meet.

Finally, the teachers are evaluated by the students and by the head of the Food Industry and Nutrition department. In relation to the students, the teachers are evaluated by means of a multiple-choice survey. The head of department carries out the teacher evaluation during the cycle. At the end of the academic period, the teacher issues an academic report considering the hours of teaching, the sections attended, the percentage of syllabus development, the type of evaluation, achievements, difficulties, special cases and suggestions.

5. PEDAGOGICAL AND ASSESSMENT STRATEGIES IN FOOD EDUCATION AT UNE. EGYV

Didactics for a diet that contributes to a healthy lifestyle is a strategy that allows for the reorientation of skills, knowledge, attitude and values in students (Ríos-Castillo et al, 2020). In relation to the above, the UNE. EGyV considers that the food education course taught to future teachers enables them to identify the nutritional value of food through simple projects. They can also make different nutritional mixtures in order to prepare balanced meals. Therefore, the teacher plays a role in the management of the course

that he/she teaches in the different faculties of our university. We also consider that the educational practice of the university teacher in relation to the food education course generates interactive dynamics that have an impact on the classroom climate (Pereira, 2009). Along the same lines, the choice of teachers considers not only their professional training and experience, but also their performance in the educational processes, taking into account the emotions and feelings of the future teachers.

The group of teachers in charge of the course divide the teaching pedagogy into two parts (Morlá et al, 2018). The first part emphasises the development of theoretical concepts. This activity is carried out in the first hour of class. The teacher uses didactic resources for the development of theoretical content to enable meaningful learning. Students interact with readings corresponding to the topic of the day. The second part of the teaching pedagogy is to encourage students' curiosity (Puigvert et al, 2012). To do this, the teacher allows students to use their mobile devices to investigate topics that are monitored by the teacher. This activity is carried out individually or in groups. In addition, activities such as exhibitions, elaboration of educational resources, among others, are carried out. The teacher provides a practical guide for the development of the educational activity. Students are invited to discuss their enquiries.

Finally, one of the functions of the food education teacher is the elaboration and management of educational resources. The educational resources used are identified in the syllabus, according to the programming of topics. We consider that experience with the educational resource is a good mediator in learning (Luna et al, 2014). One of the educational resources used in the course is the food guides for the Peruvian population (Ministry of Health, 2019). This resource is used in the seventh session and allows the contents of a balanced diet to be emphasised.

On the other hand, the food education course considers formative and summative evaluation. Formative assessment represents 60% and summative assessment 40% of the total course grade. However, during the teaching practice it is the formative assessment which is more predominant. This inclination is also observed in another higher education context (Luna, 2019). Formative assessment allows the food education teacher to identify problems, locate alternatives and improve the educational process (Pasek de Pinto & Mejía, 2017). The purpose is the assimilation of the contents proposed in the syllabus through meaningful learning. The implementation of formative assessment in the food education course is characterised by the standardisation of activities shown in the syllabus. It is also promoted in the meetings of the course's team of professors. This allows for reflection and corrections in the educational process.

Formative assessment activities consider laboratory practices, case studies, forums, visual organisers and exhibitions as assessment techniques (Álvarez, 2003). Teachers consider the instruments for assessment in relation to oral, written or observational statements (Castejón et al, 2009). Likewise, the activities that are assessed represent 30% of the 60% of the formative evaluation. The remaining 30% is evidenced by a research project carried out by students in teams throughout the educational period.

Summative assessment is used to make judgements about student performance at the end of the educational programme activities (Van der Kleij et al, 2013) and to verify student performance standards (van Groen & Eggen, 2020). In this type of assessment, teachers consider a written assessment (Alvarez, 2003). The questions are formulated by the teachers considering the topics developed in the previous weeks. The student receives their results and feedback after one week. Finally, in the 2020-I semester, the evaluations were carried out on the Moodle platform.

6. FOOD AND NUTRITION EDUCATION IN TEACHER TRAINING: THE CASE OF UPEL-VENEZUELA

The Venezuelan State, guarantor of the observance of the commitments made during the last decade of the 20th century, assumed the irrevocable responsibility to legislate and develop, at the highest political level, specific and pertinent actions in favour of education. In this scenario, the “Universidad Pedagógica Experimental Libertador” (UPEL) -the Teachers' University-, like many universities in the world and particularly in Latin America, has been developing a process of curricular transformation, fostered through the dialogue of knowledge and contact with various actors, with the intention of seeking solutions to the problems affecting the country and, especially, those related to teacher training, taking as a starting point the training demands of the historical moment, for all subsystems, levels and modalities of the Venezuelan education system.

These curricular approaches based on training in/by competences is based on: the Tunning Project-Latin America, the World Conference on Higher Education, University Education Policies in Venezuela, the Constitution of the Bolivarian Republic of Venezuela, the Organic Law on Education, the National Curricular Guidelines for Teacher Training of the Ministry of Popular Power for University Education, the General Regulations of the UPEL, all within the framework of the Transformation of the Curriculum for Undergraduate Teacher Training. Within this conception, it is imperative to contribute to the training of citizens, professionals and researchers of teaching in education so that they assume, responsibly and consciously, their role as mediators and social promoters, and thus contribute to educational transformation, in accordance with the Economic and Social Development Plan of the Nation and the Second and Third Plan of the Homeland (UPEL, 2015).

The competency-based curriculum design for teacher training is oriented towards the concept of knowledge, the globalisation of learning, meaningful learning and the teacher as a mediator of development and learning, which are supported by current educational theories specific to each area of knowledge. This approach promotes the development of competences, assumed as a system of complex, intellectual, practical, social and emotional capacities, which integrate being with practical and effective know-how, from an axiological framework energised by living together in the operative framework of each educational reality (UPEL, 2015).

Under these principles, the undergraduate curriculum, in the different specialisations, appears to be linked to an epistemological and ethical framework of the pillars of

education, as indicated by UNESCO (1998): being, knowing, doing, living together and undertaking. In this design, it is being and living together that crystallise the ontological and axiological meaning of the design, framed in the moral, social and individual values that translate into the ethical principles of the citizen, professional and researcher in teaching who is expected to graduate from this university.

Within this framework, the Universidad Pedagógica Experimental Libertador (UPEL) is a public university education institution with national coverage, aimed at the training, specialisation, updating and continuous improvement of the human resources required by the Venezuelan education system at all levels and in some of the modalities, as well as research and innovation in the different areas of knowledge and, especially, educational problems, maintaining the highest academic quality in teaching professionals and the dissemination of educational theories and practices. Its main strategic objective is to meet the needs of the educational environment, through the development of an innovative and quality training model, focused on personal, professional and social growth, based on the development of competencies, with emphasis on the ethical dimension and lifelong learning (UPEL, 2015).

For this reason, the orientation of teacher training at UPEL is for teachers to attain a series of generic and specific competences in line with the current reality of the country, in accordance with advances in science and technology, which contribute to the comprehensive development of the personality of learners, with the understanding that teachers are trained with skills and abilities that enable them to develop, implement and evaluate teaching and learning processes based on the purpose of the Bolivarian education system.

In particular, early education teachers have the highest commitment, as social leaders and mediators of the first pedagogical experiences of children from 0 to 6 years of age, to train students in the general social-cultural-personal-emotional sphere, which is indispensable as a foundation for continuing their studies and preparing them for moral, social and professional life, according to their interests, aptitudes, skills and abilities. So UPEL, from this speciality with a humanist and social focus, trains teachers with a profile that allows them to act consciously and responsibly in the educational context, to generate processes of transformation of reality from a liberating pedagogical practice. This conception translates into the articulation of generic and specific competences with the curricular units in aspects that are not only cognitive, but also social, affective, community-based, which the teacher must develop in terms of training and this general structure is visualised in figure 1.



Figure 1. Conformation of the UPEL curriculum design
Source: UPEL (2015)

In accordance with the above, the curricular structure proposed by the UPEL for undergraduate studies covers a duration of 4 years with 205 academic credits (CA) and is organised into three (3) components, three (3) curricular axes and seven (7) transversal axes. The curricular components are made up of compulsory curricular units and free-choice curricular units; the latter obey the criterion of territoriality and move according to the dynamics of the region, which guarantees the quality and flexibility of the curriculum. These components are: Teacher training component (49 CA; 24%), Specific professional training component (61CA; 30%) and Contextualised training component (31 CA; 15%). On the other hand, the curricular axes (64 CA; 31%) facilitate the formulation of collective projects linked to the conception of the current development plan, as they are presented with particular purposes and specific characteristics inherent to the training model and the curricular model.

These are Professional Practice, Research; Information and Communication Technology (ICT). The transversal axes link in/within the curricular units of the training model with reality and lead to a strategic vision of training; it is there where the transversal axes, as globalising elements of an interdisciplinary nature, run through the entire curricular design vertically and horizontally, link knowledge, underpin practice and investigative teaching and integrate the dimensions of being, doing, knowing, living together and undertaking. In this sense, the following transversal axes are proposed: language, interculturality, creativity, risk management, environment, ethics and values. These components and axes are considered, integrated and assumed in the design and development of the different Curricular Units (CU) such as the CU Food and Nutrition Education for children from 0 to 6 years of age.

In addition, during their degree and as a requirement for graduation, students must participate in three extension projects with a total duration of 72 hours, these projects of free choice are in the areas of health-sport-recreation; scientific-technological areas and the socio-cultural area. They constitute experiences that contribute to improving the quality of life of students and aim to stimulate their critical, creative and reflective capacity in order to promote human talent (UPEL, 2017). They must also participate in a Community Service project for 120 continuous hours, understood as a social and educational activity that undergraduate students must develop in the communities, based on the University's commitment to integrate into the social environment through the application of scientific, technical, cultural, sporting and humanistic knowledge acquired during their academic training (UPEL, 2008).

In this sense, the curricular design values multiculturalism, diversity, multidisciplinary, interdisciplinarity, transdisciplinarity, gender equity, co-responsibility and national and Latin American identity. It promotes the individual and social construction of knowledge, through research and communication technologies as a process of reflection on knowledge and teaching action, as well as the permanent link between theory and practice, which dialogically places human beings in permanent and continuous contact with their internal and external environment.

7. CHARACTERISATION OF THE FOOD EDUCATION CURRICULAR UNIT AT UPEL

The emphasis in Food and Nutrition Education (FNA) should be established in its realisation as the human right to adequate food, guaranteeing food and nutritional security understood as the availability of varied, balanced, sufficient, safe and safe food that is characteristic of its gastronomic culture. This is reflected in the visual guide to good nutrition for nutrition education in Venezuela.



Figure 2. The food group spinning top (INN, 2007)

For this reason, the EAN is a strategic proposal in human training for life. It is a line of pedagogical work that allows us to acquire greater awareness of the importance of the first human need and induces us to re-evaluate our own food culture. It should be oriented towards promoting or modifying eating habits, involving all members of the

educational community: children, parents, teachers and directors. Educating about the need and importance of good nutrition involves: discovering and eradicating erroneous beliefs, myths and behaviours; promoting awareness of the various functions or roles that food plays or should play in the different spheres of life, health, learning, production, distribution and consumption of food; promoting clear and fundamental concepts, attitudes and behaviours about food (De la Cruz, 2020).

EAN leads to a field of knowledge and continuous and permanent, transdisciplinary, intersectoral and multiprofessional practice that seeks to promote the autonomous and voluntary practice of healthy eating habits. This practice must make use of creative and active problematising educational approaches and resources that favour dialogue with individuals and population groups, considering all stages of the life course, stages of the food system and the interactions and meanings of eating behaviour (Bengoa, 2005).

In the case of the EAN curricular unit at UPEL, it has as a background the courses of Childcare, Health and Nutrition and Hygiene and Health, belonging to the curriculum developed at the University between 1996-2015. It is also based more recently on the development of the Research line and the community service project in food education since 2010 (<http://educacionan.blogspot.com/>), which have directed and cemented the present curricular proposal. Within this framework, the Analytical Programme of the Food and Nutrition Education Curricular Unit for the Early Childhood Education Specialisation was approved and is described below (UPEL, 2015).

Analytical programme: Food and Nutrition Education for children from 0 to 6 years of age. Speciality: Early Education. Priority: Child Development I and II. Specific Vocational Training Component. Free Choice Curricular Unit 3 CA. Number of hours per week 06.

Rationale: The EAN free-choice curriculum unit is oriented towards educating about the need and importance of good food and nutrition, with emphasis on the first 1000 days of the child and the development of the child up to infancy. Emphasising the importance of nutrition, for mother and child, during pregnancy, breastfeeding, complementary feeding, feeding during early and second childhood. It is aimed at promoting a clear awareness of the various functions or roles that food plays or should play in the different spheres of life, health, culture, diversity, sustainable development, learning, production, distribution, conservation, processing and consumption of food. Achieving the promotion of clear concepts, attitudes and behaviours on food and nutrition, within the framework of health education, as a key element for the prevention of chronic non-communicable diseases and the improvement of their quality of life. In the current situation in our country, and particularly in view of the geo-historical, socio-cultural and natural characteristics of the State of Miranda, there is an increasing need for better training of its citizens in the field of health, with emphasis on EAN, which contributes to their integral education and allows them to improve their quality of life. This is even more relevant when we place ourselves in the role of guidance, accompaniment, educational-training, mediator and advisor to the family and the community that the graduate of the Early Childhood Education speciality must play.

Generic competence: Assumes education as a continuous and permanent training process, centred on human development, based on global harmony, concerted diversity and universal development, in order to improve their own quality of life, by applying integration strategies in their educational practice.

Specific Competence: Demonstrates knowledge of significant pedagogical strategies and sensitivity towards care from gestation to six years of age, through quality professional practice for the comprehensive development of the child.

Contents:

- Physiological bases for the feeding and nutrition of children. Growth and development of children from 0 to 7 years of age. Anatomy and physiology of the digestive system and its relationship with other body control and regulation systems. Pregnancy, breastfeeding and complementary feeding. Main problems and nutritional-educational actions in these stages.
- Food and nutritional requirements, according to periods of life: foetal nutrition, childhood, adolescence, youth, adulthood and old age, and their variants according to physiological conditions: (pregnancy and lactation). Influence of malnutrition on integral health.
- Health, nutrition and food hygiene (food-borne diseases). Eating disorders: symptoms, preventive measures, treatment and recommendations. Food allergies and intolerances.
- Balanced diet, food substitutes, the food group spinning top, assessment of the child's nutritional status, importance of water and fibre intake. Breakfast. Formation of eating habits, hygiene and healthy lifestyles.
- Epigenetics and nutrigenomics, risk management for the prevention of malnutrition and the teacher as a nutritional guardian. Malnutrition in childhood, consequences and prevention of chronic non-communicable diseases. Nutritional deficiencies as risk factors.
- Food culture, historical, social, psychological variables in local and national contexts. Psychology of food, diseases and associated eating behaviours. Influence of media and advertising.
- Campaigns, programmes and institutions (National Institute of Nutrition, Bengoa Foundation, CANIA, among others), oriented to food and nutrition in Venezuela, the school as a health promoter, the right to food. The school canteen.
- Main food and nutrition problems of children from 0 to 7 years old in the Venezuelan population (national and local context), alternative solutions from a community perspective and the design of didactic strategies for the promotion of Food and Nutrition Education.

Learning Situations: Independent research and case studies, seminars, simulation of experiences, project work, practical demonstrations, self-acquisition of information, facilitations, micro-classes, educational research, problem-based learning. As well as any other orientation that expresses the most appropriate path for the teacher and

students to follow in order to build knowledge, develop procedures, assume positions and demonstrate activities favourable to health and nutrition pedagogy in childhood.

For all of the above, UPEL assumes the challenge and commitment of teacher training as a proposal that exalts the human, spiritual and emotional aspects of the Venezuelan teacher, since it is assumed that all theories are valid, but only that which arises from the answers that the teachers themselves provide from their practice, ascertained in their professional practice and in contact with the students in their family environment on such a fundamental phenomenon as the integral health of their population.

8. CONCLUDING REMARKS

In the cases of Peru and Venezuela, apart from some socio-cultural differences, the coincidence of a problem of child malnutrition stands out, in which deficit and excess coexist, low birth weight and high rates of chronic non-communicable diseases as the main causes of morbidity and mortality with a reduction in life expectancy: Peru (75.5 years) and Venezuela (74.9 years) below the average for the LAC Region (76.0 years) according to PAHO indicators (2018). This reveals a worrying situation for the development of our countries from the social, economic and educational perspectives.

There is a coincidence in the existence of sufficient legal support that assumes the commitment of States and Universities to educate children, adolescents and adults in health and especially in food and nutrition. Emphasizing the preponderant role of the teacher in this guiding function in accordance with the recommendations and agreements signed within the framework of the WHO, FAO, PAHO, UNESCO, UN.

It should be noted that both institutional proposals for higher education, UPEL and UNE-EGyV, present a multidisciplinary - socio-critical - humanist approach to teacher training, oriented towards the revaluation of traditional diets as healthier, food culture, food safety and a transversal-pedagogical-communicative approach oriented towards food and its production through contextualised educational projects.

In the case of the UNE-EGyV, it has a greater resonance in food education training, as it covers all of its degree courses as part of its general training and has highly specialised staff in this area. The course is attached to the Faculty of Agriculture, Livestock and Nutrition, which makes it possible to add nuances of greater professional-organisational depth, not only in the educational field but also in the personal, labour, technical and entrepreneurial fields.

Whereas in the case of UPEL, the curricular unit is a free-choice unit attached only to the specialisations of Early Childhood and Primary Education (more recently with some adjustments). It does not potentially cover other specialisations and the comprehensive training of all teachers, which is a limitation to be considered in the University's curricular planning. In any case, it is structurally strengthened in the Institution with the impact of the academic research work of the research line, the community service project and the

extension activities which allow consolidating the value of this approach in teacher training in Venezuela.

In summary, both institutions UPEL (Venezuela) and UNE-EGyV (Peru) share an intention and a consolidated commitment in the training of human resources with competences, values, knowledge, attitudes, critical-reflective thinking and didactic skills to teach food and nutrition. It remains to accompany these proposals and share their efforts with other Latin American universities in order to, together, achieve a healthier childhood and citizenship, which will have an impact on the development and well-being of our nations.

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