


Agricultural culture among secondary school students in rural Peru


Cultura agropecuaria en estudiantes del nivel secundario de zonas rurales peruanas


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ABSTRACT

The research problem is centered on the lack of agricultural education proposals for a sustainable life project in rural Peruvian students at the secondary level. The present study has the purpose of developing a documentary diagnosis on the situation of agricultural education of students in rural areas, at the secondary level, considering as bases of the model the didactic, psycho-pedagogical and gnoseological characterization that allows the systematization of a proposal, exercising for it a bibliographic scrutiny of the state of the art in its heuristic and hermeneutic phases with the historiographic analysis on the teaching-learning of students according to the secondary level in rural areas. The present work is descriptive and propositive, so it is based on an urgent requirement within Peruvian institutions. Theoretical aspects will be contributed as support for other studies concerning the education sector. Within the framework of a practical significance is the preparation of an agricultural education offer for the improvement of the sustainable life project. It is concluded that the curricula offered by the educational institutions do not cover the training deficiencies of the students in their agricultural activities.

Keywords: *Sustainable development, agricultural education, life project.*

RESUMEN

La problemática de investigación se centra en la carencia de propuestas educativas agropecuarias hacia el proyecto de vida sostenible en alumnos del nivel secundario de zonas rurales peruanas. El presente estudio tiene el propósito de desarrollar un diagnóstico documental sobre la situación de la educación agropecuaria de alumnos en zonas rurales, del nivel secundario, considerándose como bases del modelo la caracterización didáctica, psicopedagógica y la gnoseológica que permite la sistematización de una propuesta, ejerciendo para ello un escudriñamiento bibliográfico del estado del arte en sus fases heurística y hermenéutica con el análisis historiográfico sobre la enseñanza-aprendizaje de los alumnos del nivel en mención, siendo un trabajo de tipo

descriptivo y propositivo, por lo que se sustenta en un urgente requerimiento dentro de instituciones peruanas. Se aporta aspectos teóricos como soporte para otros estudios concernientes al sector educación, y en el marco de una significación práctica se encuentra la preparación de una oferta educativa agropecuaria para un perfeccionamiento del proyecto de vida sostenible, concluyendo que, la currícula que ofertan las instituciones educativas no cubren las deficiencias formativas de los alumnos en sus actividades agropecuarias.

Palabras clave: *Desarrollo sostenible, educación agropecuaria, proyecto de vida.*

INTRODUCTION

The content of the curriculum in the area of training for work in agricultural education at the secondary school level is minimal, with topics related to Agronomy, Animal Husbandry, Agroindustry and Forestry only superficially: Agronomy, Animal Husbandry, Agroindustry and Forestry. There is 10 active agricultural and livestock schools throughout the Peruvian highlands. Students in regular basic education, admit little instruction in agricultural education, wasting a rich national agricultural potential (Burga & Villanueva, 2019). Vargas et al. (2001) adapted a labor education model, understanding it as valid to be applied to urban and rural populations of low economic income, based on an experience carried out in Honduras, where they allude to the knowledge acquired through adult education in various nations of the world, the designated underdeveloped countries, especially those of Latin America; In this regard, Gomero (2002) asserts that a life project is a route that human beings trace as a starting point according to the responsibilities and values hierarchized experientially, starting from multiple and diverse situations in their existence, looking to the future of professional life. The aim was to determine the formative deficiencies of the agricultural education system of secondary school students in rural Peruvian areas, for the improvement of their sustainable life project.

MATERIALS AND METHODS

The present research was framed in the exhaustive search of information concerning the topic, for which we resorted to different databases such as SciELO, Redalyc, Latindex, Web of Science, Scopus, PubMed, among others, using the keywords "sustainable development", "agricultural education", "life project"; An exhaustive search of degree theses related to the topic was also carried out in university

repositories such as those of the Universidad Nacional "Pedro Ruiz Gallo", Lambayeque and scientific journals, using the heuristic method for the collection of information and then using the hermeneutic method for the interpretation of the texts.

LITERATURE REVIEW

Sustainable agricultural development within the framework of a globalized economy

Most child laborers work in the fields, and this child labor in agriculture has a "bitter harvest", which is almost always ignored by an urban and industrialized society (Gutiérrez, 2012). There is a proposed model that is the result of a systematic experimentation, which is considered a scientific methodology aimed at populations with similar particularities; this happens with rural dwellers with low schooling rates and subsistence agriculture, with high illiteracy indicators and minimal support services conditions; it can be applied in populations of extreme poverty. In this methodology, there is the participation of many educational institutions (EI), groups of organizations, technicians and professionals. The main actors, people and groups come from communities, who are the main characters in the development of the process of education for work (Said et al., 2010).

Education and new challenges

The Lima Job Training Program, raises considerations such as transformation challenges, putting education before new challenges with the purpose of researching and promoting the development of vocational training aimed at the business-productive power and civil society, especially disadvantaged populations, which give people opportunities for productive work, entrepreneurship and the continuity of higher education. Coordination with the national vocational training system and its linkage with national and

international public and private EIs for strategic business alliances.

The EIs as versatile and agile entities that frame the strata of the national economy, are developed through twelve technical nuclei: Textile, Tourism, Materials Technology, Electrical Sector, Artisanal Processes, Nautical Fishing, Metal Mechanics, Vehicle Mechanics, Graphic Industry, Food Industry, Commerce and Service and the agricultural sector (Ovalles et al., 2018). Different research projects give attention to sustainable agriculture, responding to the priority requirements in that sector, thus trying to collaborate with the analysis of the implicit problems such as: treatment of solid and liquid waste that in one way or another have been constantly spoiling the large hydrographic basins (Gil et al., 2012). The management of agricultural soil in terms of adequate conservation practices, in its capacity of use, as well as in its gradual use of irrigation water.

Information and Communication Technologies (ICTs) in rural extension

In current rural extension programs, Espíndola (2005) states that there are five aspects present: 1) Insertion of electronic technology in the programs 2) Majority resistance of the participants 3) Underutilization of the new opportunities provided by these programs 4) Weak training in competencies of those who must design tools and those who must use them 5) Dynamic and successful cases of extension processes including ICTs. In this concrete reality, it is essential to transfer information with educational intentions focused on rural areas, based on the transfer of new technologies, constant training of producers of different products, as well as technical assistance and information, in addition to the informal education processes that are necessary in rural areas (Luján, 2010)

Agricultural education as a sustainable life project

The incorporation of the educational model of sustainability in national curricula is an important decision leading to an education with a guarantee of food sustainability of the population (...) adhering citizens to a prospective and sustainable education is a systematic impulse, also a primary objective in the formation of people with social responsibility and with a vision of economic and self-sustainable development over time (Navarro et al., 2017). In

many Ibero-American countries, they have committed to this work at different educational levels within the framework of globalization and in a sort of positive way of raising awareness in agricultural education that, fortunately is taking accelerated steps (Guerrero, 2004). Nowadays, the aim is to strengthen the attitudes and behaviors of students who cooperate in favor of sustainability, being the reason for organizations from rural to urban areas. Interest is growing in topics related to the understanding of everyday problems, i.e., the awareness of agricultural education in national curricula, which will favor educational objectives towards a sustainable future.

Neither development nor sustainable

March 22nd was instituted as World Water Day, at a conference of the United Nations, with the aim of highlighting the growing lack of water in the world and the obligation for greater cooperation and integration to ensure efficient and sustained management of water resources. Several regions of the world suffer from severe water scarcity, surviving on less than 500 m³ per capita, and the number of regions suffering from water scarcity is increasing.

Internationally, the most common definition of sustainable development is "development that meets the needs of present generations without compromising the ability of future generations to meet their own needs". According to the United Nations Environment Program, more than one billion inhabitants of 100 countries are threatened by desertification, due to the decrease in agricultural production. There is scientific data that reliably demonstrate the impracticability of large-scale agricultural production in the short or medium term, in such a way that Latin America could lose half of its agricultural land within 30 years, risking the food security of the Americas.

Life project with sustainability

Under the premise "education changes man and man changes society", as stated by the organization of Latin American educators in 2007, sustainability is based on agricultural education, due to the close relationship between the educational level of the population and the training received to make decisions, contributing to a better quality of life on the road to sustainable development (Miranda et al., 2007). A life project comprises functional plans that

people draw up to achieve a certain objective; a project closely linked to the person in many aspects, indicating a certain way of life in social relations, where decision making can sometimes be difficult and wrong. Lacking a life project is synonymous of walking without direction, within the absurdity of things, being the current drama of many people, who do not know what they live for, since they do not have their lives on track, and collide with the real world, coinciding with Hinojosa et al. (2021) who affirm that there is a minimal presence of women and young people in community work meetings, only subject to state paternalism; therefore, the results of impact and sustainability with the adoption of technologies are not fully achieved and the levels of agricultural production in rural areas are still low.

Farmer Education Nuclei (FEN)

The FENs were created to provide primary education in a sort of parent school (linked to schools that taught the first grades of primary school) that served as headquarters because it had better infrastructure, comprising large tracts of agricultural land where there were farms and orchards that were worked by the students and had adequate facilities for raising small animals native to the area. During the weekends, parents worked helping their children and collaborated in shifts in communal tasks, contributing with this work to the improvement of the quality of products and maintenance of the infrastructure.

The peasant work that began to be put into practice in the FEN was aimed at productive work, since it was closely linked to agriculture, livestock and all the economic activities of the environment. Promoting practices for the good health of the rural population, improving the quality of housing, carrying out health campaigns, creating bilingual educational programs, promoting campaigns for school nutrition and against alcoholism. In the main schools, educational services were created, such as a school bakery, pharmacy and hairdressing salon to serve students and the community in general, while teachers developed their curricular programs oriented basically to the agricultural sector. The means of communication was the native language of the place (Aymara and/or Quechua) at the beginning, but when the students moved to the main school they found a harsh reality where the teaching was already in Spanish, in addition this main school was an executing unit, since

it administered human resources, as well as the budget, goods and services of the entity. Some nuclei with better budgetary availability were in charge of the student food service.

The main requirement to become a director and/or teacher was to have been trained in a center of specialization in rural or peasant education, which was based in Chucuito, a district in the province of Puno. Within the main school, the communal council functioned as a participatory, support and decision-making body, chaired by its director and made up of rural communal presidents. The Peruvian peasant was directly favored in the development of this model trial, finding there a promising future for their children, although later came the failure and frustration with the model, since the governments of the time forgot or simply changed it, limiting education to urban areas, which in no way benefited the peasantry, except between 1968 and 1975 a short period that from then on could not do more, always prevailing centralism, being necessary the proposal of a model of sustainable agricultural and livestock education.

Cultural mediation and educational curricula

Rengifo (2005) states that cultural mediation includes nurturing, cultivation and encouragement by the trainer or teacher of the cultural diversity existing in the country, implying respect for the visions that different peoples have of reality. Each culture sees and perceives the world in its own way. There is no universal culture, since what we have on the planet is diversity that must be preserved, strengthened and respected; in such a way that the teacher promotes in the classroom the transfer of technology associated with science, as well as Andean-Amazonian knowledge (Irizar et al., 2010). Since it is feasible to diversify the educational contents, and the current law allows it, it is possible to modify up to one third or more hours of the curriculum, so that the contents of this third arise from the reality in which the student lives and from there, and following the didactic guidelines, integrate them into the annual school educational plan. The homogenization of the curriculum would be counteracted by diversifying it according to the cultural conditions of each region (Vezub, 2007). A school that develops in a multicultural and multiethnic country is obliged to integrate and place in children's life the cultural

diversity that is proper to us, so that the oral culture that is at the root of the Peruvian tradition is not relegated by a modern context (Valverde, 2010).

RESULTS

Among the factors that hinder the development of agricultural education for the citizens of the country are the deficient political decision of the government of the day, lack of interest of the youth in the great importance of agricultural activities for human survival and the lack of a humanistic agricultural policy in the governments of the day, since there is a passive agricultural education policy that only contemplates the teaching and learning acquired at home and not in the secondary level EI, this is due to the lack of a pertinent State policy State based on academic feedback, in agreement with Chacón et al. (2021) who assert that the school reinforcement strategy significantly improves learning in problem solving of students in the 1st grade of secondary education at the PRAXIS school in Huancayo, Junín. An agricultural culture includes scientific knowledge and the work of plowing, furrowing, sowing, fertilization, irrigation, weeding, pest control and crop diseases.

DISCUSSION

Said et al. (2010) mention that, the main actors come from the communities; while the agricultural culture covers scientific techniques and the constructive tasks of corrals, stables, as well as the management of feeding, production, reproduction and animal health; the agro-industrial culture covers the knowledge concerning the transformation, processing, conservation and industrialization of agricultural products, such as meat, milk, wool, fiber, skin, egg, feather, oil, nectars, flour, medicines among other anthropic activities that as emphasized by Ovalles et al. (2018), must be framed in a permanent innovation of knowledge that contributes to the improvement of the quality of life of the inhabitants.

CONCLUSION

The analysis of the curricular plan offered by the EIs shows us that they are not oriented to correct the formative weaknesses seen in the students of agricultural education, in such a way that they are not considering taking into account the labor performance of the potential secondary school

graduates in these curricular proposals for rural areas; On the other hand, there is an absence of educational proposals in the agricultural field, increasing the gap that distances us from developed countries, increasing the population of extreme poverty, which makes it necessary to reevaluate the graduates in order to reverse this orientation and turn them into managers of sustainable and sustainable human development.

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