

Learning Spaces, Competence Training in Professional Performance, and Agricultural Development in Cuba

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Abstract

In Cuba, the challenge for universities is to dynamize learning spaces in contexts of economic development, with the relationship between universities and territories being the key to their success. In this paper, we intend to socialize the alternatives that should be assumed for the training of facilitators that articulate in local innovation systems and that departs from the foundations of Education for the development of competences in the professional performance. This way, it contributes to the research of the professional profiles of the local actors who intervene in the processes of development of the food program in Cuba through the application of a questionnaire and discussion groups. The sample used was comprised of various local actors who interact directly in agricultural contexts and perform different functions. The information collected and processing of quantitative data with the use of the SSPS statistical package and for the qualitative data with Nudist Vivo, determined not only the competence portfolios in professional performance, but also the ways to include courses that are inserted in undergraduate and graduate education resulting in the creation of knowledge management processes and innovation for the development of a fair, equitable, and inclusive society.

Keywords:

learning, competences in professional performance, agricultural development

Espacios de Aprendizajes, Formación de Competencias en la Acción Profesional y Desarrollo Agropecuario en Cuba

Resumen

En Cuba las universidades tienen como desafío la dinamización de espacios de aprendizaje en contextos de desarrollo económico, siendo la relación universidad y territorios la clave para su éxito. En esta comunicación se pretende socializar las alternativas que deben asumirse para la formación de facilitadores que articulen en los sistemas de innovación local y que parte de los fundamentos de la Educación para el desarrollo de las competencias en la acción profesional. De esta forma se contribuye a que se investiguen los perfiles profesionales de los actores locales que intervienen en los procesos de desarrollo del programa de alimentación en Cuba a partir de la aplicación de un cuestionario y grupos de discusión. La muestra utilizada estuvo compuesta por diversos actores locales que interactúan directamente en los contextos agropecuarios y cumple diferentes funciones. La información recogida y su procesamiento de los datos cuantitativos con la utilización del paquete estadístico SPSS y para los datos cualitativos Nudist Vivo determinaron no solo las carpetas de competencias en la acción profesional, sino además las formas de construir cursos que se inserten en la enseñanza de pregrado y posgrado que tenga como resultado la formación de procesos de gestión del conocimiento y la innovación para el desarrollo de una sociedad justa, equitativa e inclusiva.

Palabras claves:

aprendizaje, competencias en la acción profesional, desarrollo agropecuario

Espaços de Aprendizagem, Formação de Competências na Ação Profissional e Desenvolvimento Agropecuário em Cuba

Resumo

Em Cuba as universidades têm como desafio a dinamização da aprendizagem em contextos de desenvolvimento econômico, sendo a relação universidade e territórios a chave para seu sucesso. Neste artigo pretende-se socializar as alternativas que devem ser assumidas na formação de facilitadores que operam nos sistemas de inovação local e que partem dos fundamentos da Educação para o desenvolvimento das competências no âmbito profissional. Desta forma contribui-se na pesquisa de perfis profissionais de atores locais que intervêm nos processos de desenvolvimento do programa de alimentação em Cuba a partir da aplicação de um questionário e de grupos de discussão. A amostra do estudo esteve composta por diversos atores locais que interagem diretamente nos contextos agropecuários e cumprem diferentes funções. A informação levantada e o processamento dos dados quantitativos com a utilização do pacote estatístico SPSS, e de dados qualitativos com o programa *Nudist Vivo* determinaram não apenas os conjuntos de competências na ação profissional, mas também as formas de construir cursos que se insiram no ensino superior e de pós-graduação e que tenham como resultado a formação de processos de gestão do conhecimento e a inovação para o desenvolvimento de uma sociedade justa, equitativa e inclusiva.

Palavras chaves:

aprendizagem, competências no âmbito profissional, desenvolvimento agropecuário

Introduction

Development is the expansion of human capabilities and freedoms (Sen, 1999). The construction of capacities to face the deficiencies and their liberties; it is given in the possibility of creating in a significant way an environment that favors

their life. Development, according to Arocena & Sutz (2006), adopts judgments that emphasize the need for an integral transformation, a process that is structured from the integration of these perspectives, interpreted by them as the interrelation established between human development, sustainable development, economic development and construction of the material bases; this

last conception is defined as the formation of social conditions and capacities that guarantee the self-sustainability of Development in the face of progress.

Given these premises, knowledge has a value and part of the levels of information that we have about a given context, and its innovations must be socially appropriate for development planning to be successful. According to Nuñez (2010) this appropriation is understood by:

1. The process by which people, the people, access the benefits of knowledge, often embodied in goods and services of great social interest. For this it is essential that the technical and scientific trajectories, the processes of production/assimilation of knowledge, are basically oriented to the attention of social needs;
2. The process by which people engage in activities of production, transfer, assessment, adaptation, application of knowledge and know-how.
3. The extension of a scientific, technological and humanist culture understood as the social capacity to use knowledge in personal and social decision making.

The idea of the functionality of the systems of relations that are established in the processes inherent to development based on the social appropriation of knowledge (Nuñez, 2010) of the population, are adapted to population studies because they assume these axioms proposed by Arzola, Fis & Fundora (2015):

1. People's knowledge and their links with development can contribute to a substantial improvement in their living conditions.
2. The design and implementation of direct forms of articulation of the population and its development propitiates the construction of conditioning factors that promote social inclusion.
3. Formulation of development alternatives that strengthen stakeholder participation and entrepreneurship at the local level.

Reconsidering education and development for the integral analysis of social learning processes, from the construction of capacities and the empowerment of human freedoms, is a current requirement of inclusive development in coherence

with the knowledge society.

The existence of spaces for exchange is the key to the success of territories that assume the demands of development in areas of complexity due to the diversification of their actors. The empowerment of its population, the formation of knowledge networks that interact with diverse areas of knowledge, promotes the formation of alliances between actors and daily learning in the formation of networks, as essential characteristics of science, technology and innovation systems (Casas, 2015).

Faced with the challenge imposed by society on Cuban universities to project their knowledge committed to the development of society, Lundvall's (1992) assumptions must be considered when he states that learning and education become keys to economic development, postulates that later develop them (Lorenz & Lundvall, 2006). In view of this, it is necessary to go deeper into other processes that have a significant impact on development.

Taking the perspective of competence training in professional action facilitates the introduction of a capacity building process from the principles of Education for Development. Rethink about the postulates that are part of these analyses, more than a challenge generates challenges in their applicability in contexts that demand the relation university and territory, and allows a social appropriation of local knowledge in function of a sustainable development and that is based on equity.

In line with these ideas, from the 90's onwards the professional requirements in the context of development promoted the approach of professional competences mainly from the professional action. Consequently, professional profiles are beginning to be redefined on the basis of a broad conceptual reference that includes concepts such as: capacity and qualification.

The changes that occur in the working world, in the models and in the organization of work, mainly in concepts such as content, means, methods and social forms, impose a new professionalism, structuring and substantially modifying the professional requirements (Echeverría, 2005).

Changing social, economic and political conditions lead to the development of a concept of pro-

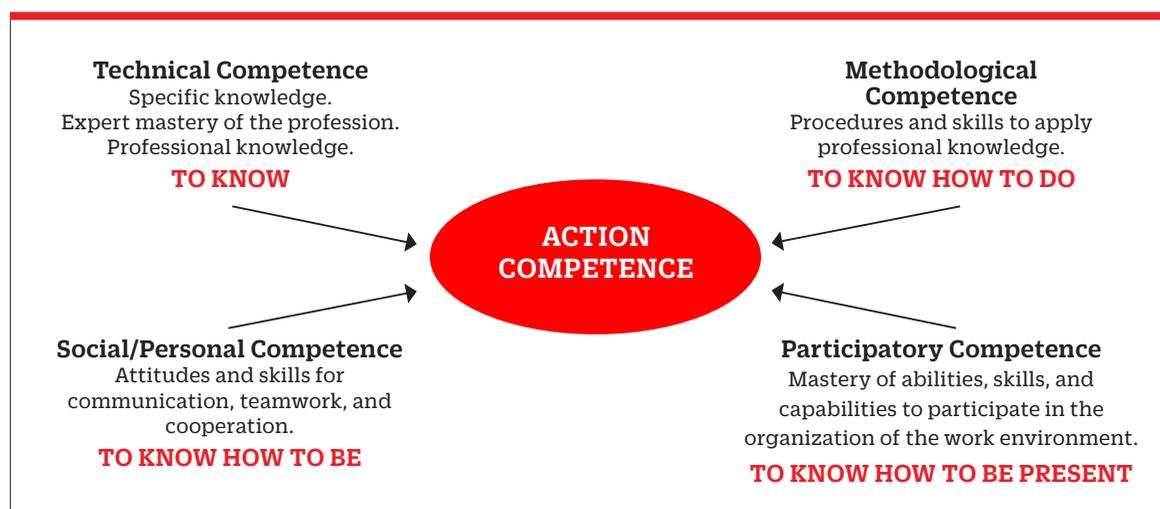


Figure 1. Echeverría's Definition of Competence (2002).

professionalism in which the capacities and qualities of the profiles are merged in their way of acting, causing a new labor referent to exist at present, which considers both points of view. This position requires that competences in professional action be taken as a reference, a term that understands and consolidates another professional practice (Pozo, Poza & Gutiérrez, 2003).

The introduction of the term competence in professional action generates changes in the planning process of professional and academic training, facilitating the correct acquisition of skills, abilities and attitudes in the socio-cultural field, so that there are effective communication channels between employers, workers and educational entities. Assuming as a reference the professional action from the competency approach allows improvement plans to be designed; for academic or professional training, which favors socialization between universities and the territory.

For this reason, concepts such as knowledge, aptitudes, skills, abilities, attitudes, communication skills, expectations, culture of participation, among others, are exemplified in the definition that indicates that an individual is competent when he or she demonstrates that he or she knows, knows how to do, knows how to be and knows how to be present, i.e., that he or she possesses technical, methodological, participative and social competences, according to Echeverría (2002).

Theoretical conceptions of competences in

professional action not only allow a dynamic and up-to-date redefinition of the different professional profiles, but also guide the initial and ongoing training programs of these professionals (Pozo et al., 2003).

In this communication the intention is to socialize that the conceptions of competences in professional action constitute a theoretical reference when it comes to the training of local actors, and from the paradigm of Education for Development and Dialogical Communication, based on the visualization of research that has been developed in agricultural contexts that enhances the spaces of innovation and social learning in communities that promote technologies aimed at food production. However, it is also necessary to visualize the training needs of local actors, the level of acquisition of skills in professional action and the educational alternatives that are implemented and that promote the development of capacities within socioeconomic contexts that significantly tax the Food Production Program in Cuba.

Faced with this reality, there are several experiences resulting from the implementation of the Local Agricultural Innovation Program (PIAL, in Spanish) and it constitutes a precedent of the Local Agricultural Innovation System (SIAL, in Spanish) as an instrument that allows local governments and local actors involved to resolve the obstacles that hinder the development of agrifood chains at the local level. This system

is made up of the Multi-actor Management Platform (PMG, in Spanish) and the Local Agricultural Innovation Groups (GIAL, in Spanish) that function by articulating diverse local actors and the local government as proposed by Ortiz, La O & Miranda (2017).

Method

Design

The methodology used is qualitative from a multi-method design perspective, corresponding to a mixed research approach. Today, there is an increasing need for complementarity and integration between the different methods available, so as to explain events while optimally solving the problems of substantive improvement of specific programs and contexts (Colás & Buendía, 1992).

Context

The formation of competences and their qualification is a guideline of the PIAL coordinated by the National Institute of Agricultural Sciences (INCA) and which establishes alliances with several Cuban universities, one of them being the University of Ciego de Ávila (UNICA).

These ideas are systematized in the municipalities that are inserted in the PIAL and that at present their main result is the strengthening of the SIAL, these localities are: Venezuela, Baragua and Primero de Enero in the province of Ciego de Ávila, with emphasis on spaces for exchange and

learning of local actors as subjects and objects of socio-economic transformation processes, considered a challenge for the territory of Avila.

Participants

The sample used is composed of diverse local actors who interact directly in agricultural contexts and perform different functions. The selection criterion was intentional and not probabilistic due to the purpose of the exploratory study being carried out, structured as shown in Table 1, and due to the implication and information that they contribute to the research and because they are part of this research's purpose.

From the 153 subjects selected for this study, 63.9% is represented by males and the rest by females. This points to the need to other research studies being developed from the gender approach because women in essence are the main labor resource of this province to be able to sustain development until 2030.

Instruments

For the analysis and interpretation of the information, a bibliographic review and analysis of documents were carried out. In addition, the survey method was applied through a questionnaire to determine the training needs and levels of acquisition of skills in the professional action that local actors have and the interview to identify alternatives that could be implemented in accordance with the requirements of the innovation that is developed in agricultural contexts, to facilitate the qualification of learning groups.

Table 1

Sample selected in the research

	Province	Primero de Enero	Baragua	Venezuela
Local Government	2	2	2	2
University	15	3	3	3
Agricultural Company		3	3	3
Agriculture Delegation	3			
Producers from the Productive Units		13	13	13
Women inserted in production units		10	10	10
Facilitators	10	10	10	10
Total	30	41	41	41

Procedure

SPSS 15.0 for Windows was used for information processing, for the analysis of quantitative data obtained from the questionnaire to local actors of agricultural development and for the identification of the levels of training needs and the levels of acquisition of competences in professional action, according to their position in local development.

On the other hand, the analysis of information of a qualitative nature has been the general process of the qualitative analysis proposed by Miles & Huberman (1994) who identify three general phases that can be superimposed at any time: Reduction of Data, Presentation and Disposition of Data, Obtaining and Verification of the information, evaluations that facilitated an adequate interpretation of the answers emitted in the interviews applied to the subjects of this investigation, that indicated the alternatives that can be assumed for the formation and qualification of the competences in the professional action within the formation of facilitators of the agricultural development, from their expectations and challenges.

Generally speaking, the categories analyzed are structured as follows (see Table 2):

tructed from the identification of the training demands of local actors in correspondence with the problems and potentialities of the agricultural context enunciated in guiding documents on agricultural development in Cuba.

Next, it is evident (see Figure 2) that the demands of the local actors are directed to a greater apprehension of tools and instruments for the scaling up and incidence in public policies from the communication and popular education, associated to other knowledge that base the existence of learning, that has as main result the formation of facilitators that are inserted in the SIAL in the province of Ciego de Ávila, collectively built among everybody.

Job Functions and Demands

Local actors are constantly exchanging and interacting in development spaces and depending on the role they play, assume various functions that promote the development of local agricultural innovation systems, and according to the information recorded, the least developed functions are those related to Social Process Management, Administration, Coordination and Management, and Social Facilitation. There may be several causes, but it indicates the need to look for training alternatives in order to perfect action in development contexts (see Figure 3).

Professional Competences

The identification of the levels of acquisition of professional skills by local actors, defined as generic, intervention and specific, within the pro-

Results

Training demands of local actors in correspondence with the problems and potentialities of the agricultural context.

The three instruments were applied to the sample; in a general sense, the questionnaire was cons-

Table 2
Presentation of the categories analyzed

Questionnaire I	Questionnaire II	Interview
Situational variable (age, sex, functions, work context)	Situational variable (age, sex, functions, work context)	Situational variable (age, sex, functions, work context)
Formative demands of the agricultural context. Main problems.	Functions and requirements of professional practice	Expectations about capacity building processes in local actors
	Professional Competences	Challenges of capacity building for local actors in learning spaces in agricultural contexts.

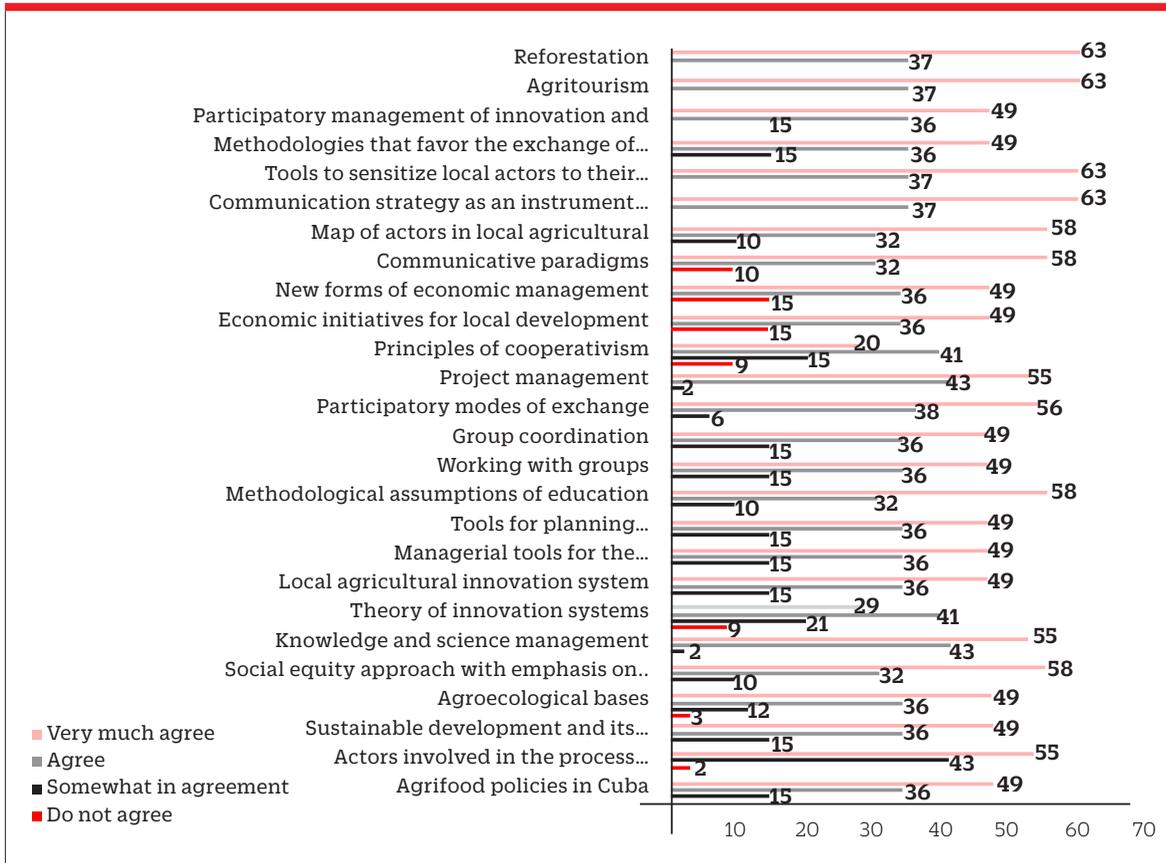


Figure 2. Training needs of local actors obtained from the questionnaire.



Figure 3. Criteria for Valuation of local actors' perceptions of their functions in agricultural development spaces.

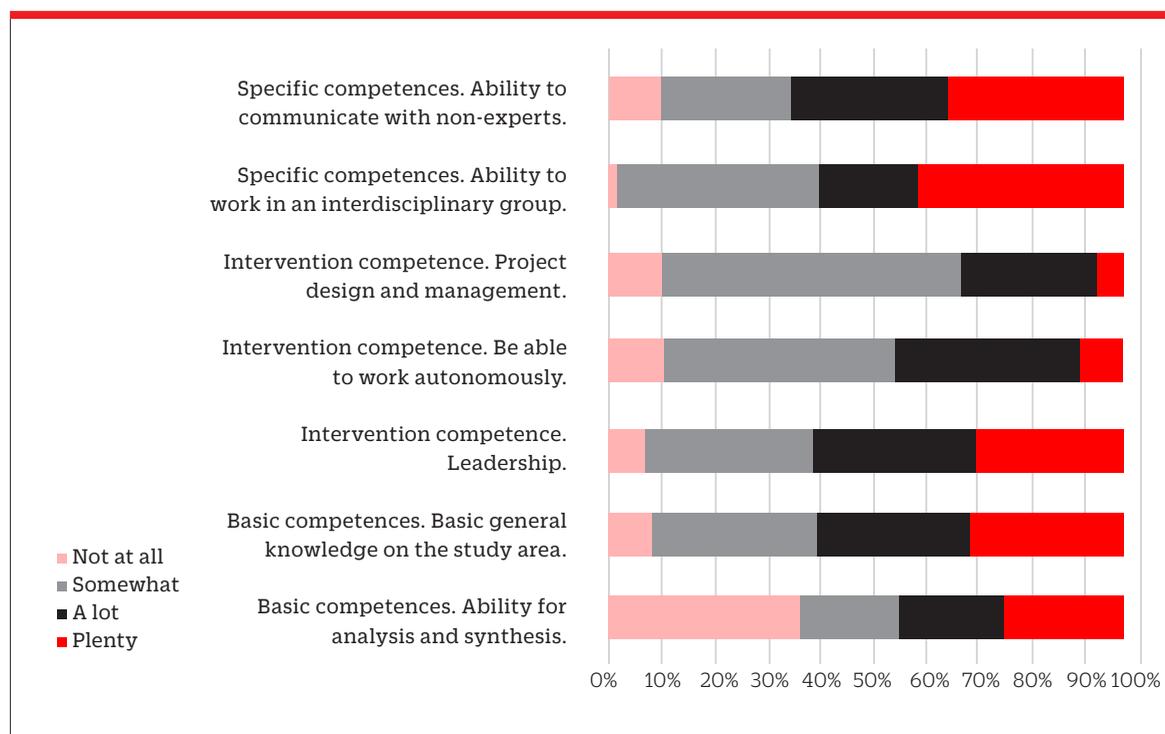


Figure 4. Analysis of the results of the levels of acquisition of basic, intervention, and specific skills by local actors.

cess of their training is a very important step. In Figure 4 it can be observed that the basic competences that are related to the *Capacity for Analysis and Synthesis and Basic General Knowledge on the area of study* are the least acquired by them, which makes a systematized aspect that is related to the agrarian policy in Cuba and its implication in the changes that are currently taking place.

When one evaluates the *competences* that are considered very necessary for the improvement of the modes of action and that enhance the relationship levels of the local actors and their territory, it is evident that there are three that do not have a significant level of acquisition, they are: Leadership, use to work autonomously and design and project management.

These, in turn, have a lot to do with the assessments obtained in the analysis of *specific competences* which, despite the fact that their levels of acquisition are not very low, should increase the capacity to work in an interdisciplinary group due to the need and social complexity of agricultural contexts and the capacity to communicate with people who are not experts in the matter, so that the levels of perception of the same reality are

deepened to the extent that different visions of it are incorporated.

These results emphasize that it is necessary to improve the training of local actors as facilitators of agricultural development; for what is important for the territory that the formative processes that are projected from Cuban universities, by their commission, impact on socioeconomic development and that currently requires that their human potential has an effective, effective and efficient management of knowledge and innovation.

Demands.

When it comes to *demands*, it is identified that those that are most perceived at a high level of importance are those related to *attitudes* in a general sense are marked to a greater degree of importance: Flexibility in the mode of action; Versatility in the mode of action; Objectivity in the mode of action; Permanent dialogue with those involved in my means of action and confidence in myself.

If this result is related to those obtained in terms of functions, professional competences, and demands of local actors, it indicates that training

processes should not only be based on aspects that relate only to the agricultural context, the association of topics such as communication for development, public policies and the learning of tools based on popular education are important premises for articulating the dynamics and socioeconomic complexity of the agricultural reality in Cuba within the training processes that are generated.

Discussion

Challenges of capacity building for local actors in learning spaces in agricultural contexts.

The relationship of the categories analyzed in this study, such as: *training demands of local actors in correspondence with the problems and potentialities of the agricultural context, labor functions and demands, professional competences and demands*, facilitates the identification of training profiles in correspondence with the development demanded by society and the alternatives that must be applied in coherence with the learning groups to which capacity building is directed.

In line with these lessons learned in the experimentation process in the implementation of the PIAL and the applicability of the methodological principles of this study, their feasibility is tested in the process of qualification of the competences in the professional action of the actors interacting in the SIAL.

The results obtained in the two questionnaires were complementary to those obtained in the interview, allowing an adequate discussion of them and the formulation of the alternatives to be developed. The main requirement that must be applied is that the training of local actors must be developed from the dialogical paradigm that ultimately requires capacity building processes that favor the dynamization of learning spaces, as requirements for training modalities that form facilitators of agricultural development in the province of Ciego de Ávila.

Another guideline that facilitates these inquiries is that the identification of the thematic axes shall articulate from the sensitization, training and dynamization constituting a starting point that justifies the need to build learning spaces

from the approaches of Education for Development. Defining stages assumed by the social innovation that allows the construction of capacities, making emphasis in the link university - productive sector - local government and with protagonist role of the producers.

This typology of analysis includes the requirements and complexity of each territory due to the multiplicity of its local actors. For this reason, the *principles* for the design of learning modalities focused on the training of skills in the professional action of the local actors involved in the SIAL must start from these axioms that interact with the particularities of the addressees, tools and mechanisms for the evaluation and monitoring of good practices.

The training of local actors involved in agricultural development contexts implies the need for a change in the way of assuming and projecting the socioeconomic reality configured by networks, information flows, policies, knowledge, heritage, learning, institutionality of social relations, equity and sustainability.

The *general objective* of the formation of these learning spaces is to promote spaces that articulate in local agricultural contexts, facilitating a continuous formation that allows to respond to the challenges of the SIAL Production Program in the province of Ciego de Ávila.

This purpose demonstrates the intention that the University of Ciego de Ávila has to guarantee a continuous training scheme conceived from the undergraduate level and that facilitates the continuity of the training of the graduates of agricultural, technical and humanistic careers, of the producers, assuming a training cycle that enhances and perfects the map of careers, the postgraduate from the academic training and that finally enhances the scientific training that assumes diverse areas of knowledge, which is not the case at present and which limits an integral thought when the agricultural reality is visualized by the local actors.

For this reason, it is necessary to mobilize their knowledge in order to enrich the socio-cultural practice that is gestated in productive poles of the province and thus build an education for development in line with the requirements of SIAL.

The information analyzed from the applied

measurement instruments facilitated the identification of portfolios of competences in the professional action of local actors involved in the SIAL, and is described below:

- *Technical or expert competence*: Specific knowledge: Agricultural development (interaction dynamics and conflict resolution), agrifood policies and main actors in agricultural production; sustainable development on agroecological bases and social equity approach with emphasis on gender relations; knowledge management, science and innovation for local development, social research methodology, evaluative research and program evaluation, resource management (human, material and economic) and informatics, social and solidarity economy, and popular education.
- *Methodological competence*: Capacity to access information, ability to direct spaces of agreement, to apply different strategies of teamwork, to plan an intervention, to manage research projects, tools for the implementation of the SIAL and of communication to influence public policies, to dynamize groups, capacity to adapt, to update, computer skills and skills to establish participation as a basic principle in the performance of the different local actors, independently of the role they assume.
- *Participatory competence*: capacity for leadership, coordination, organization, relationship, conviction, decision making, assuming responsibilities and making decisions, leadership, social and communication skills and mainly as a facilitator of agricultural development.
- *Social/personal competence*: Creativity, personal coherence, stability, attitudes and skills to communicate, to work in a team and cooperate with others, empathic capacity, self-critical capacity, belief in one's own capacity, capacity for consensus and having a vision of each social and cultural process.

The *methodology* that should guide the training of local actors must assume the integration of innovative and significant learning experiences so that these learning cycles provoke the par-

ticipation, cooperation and involvement of the participants in their own training as they are the protagonists.

The following is a list of activities that should be structured as phases that include different educational intentions. Because it is a process of training in learning cycles in which is structured the sequence of activities about the proposal of training based on professional action skills to local actors, among which are:

- *I Cycle*: Development of Modules aimed at capacity building towards the process of sensitization to mobilize innovative capacity in terms of agricultural development, based on the principles of communication for development and popular education.
- *II Cycle*: Development of Theoretical Modules on themes that are based on social innovation and that are integrated to generic competences, that are assumed for the search of information in the localities, starting from the dominion of the procedures of the spaces of social interchange in the SIAL.
- *III Cycle*: Development of practical modules consisting of thematic axes from contextualization, multidisciplinary and transdisciplinary as quality patterns in the design of improvement plans or concrete actions in the management of projects and implementation of good practices in correspondence with the demands of local actors in areas where SIAL is inserted.

The evaluation of each learning cycle is systematic and has as its essential principles the attendance and active participation of the participants in each teaching activity, as well as the approval of a final work that must always articulate with the territorial potentialities in order to solve the existing problems, creating the necessary conditions that create a culture of participation in the articulation of local actors, a fundamental requirement of social innovation systems.

Conclusions

In Cuba, Higher Education is assuming different changes and makes the socio-educational spa-

ces articulate between the university and the territory, facilitating the creation of conditions so that each community is capable of managing the knowledge and information they demand.

In areas of development it is important that the initiatives promoted assume the potentialities of each reality, based on the opportunities of those involved, in a specific time and space. However, capacity development processes are required for local actors from technological approaches and the perspective of social inclusion (Fressoli, Dias & Thomas, 2014), as an aspect that distinguishes and promotes the promotion of the bases of social equity in the construction of learning groups.

One of the conclusive ideas of this study is that from the identification of the training needs of local actors an approach to three essential qualities is promoted: functions, requirements and professional competences of local actors and the visualization of the procedures that are socialized, facilitates the identification of the profile of the actors and their portfolios of competence in the professional action.

At present, the lack of knowledge of these qualities means that the learning cycles are not contextualized and do not have the social impact demanded by agricultural development in Cuba, much less in its development structure such as SIAL.

The alternative presented, from its basic descriptors, facilitates the complementarity of the paradigm of Education for Development with the conceptions of competences in professional action, which not only allows the qualification of the modes of action of local actors, but also allows the construction of learning cycles that are managed in development contexts, perfects the structure of research and development projects on a local scale and facilitates synergy between the university, business sector, organizations and the community in coherence with the principles of a fair, equitable and inclusive society.

References

- Arocena, R., & Sutz, J. (2006). El estudio de la Innovación desde el Sur y las perspectivas de un Nuevo Desarrollo. *Revista Iberoamericana de Ciencia, Tecnología, Sociedad e Innovación*, 7. Retrieved from <https://goo.gl/skCQAP>
- Arzola, L., Fiss, Y., & Fundora, D. (setiembre 2015). *Inclusive development as a requirement of social innovation in Cuba*. Ponencia presentada en el Congreso GLOBELICS'15, La Habana, Cuba. Retrieved from <http://2015.globelics.org/home>
- Casas, R. (2015). *La literatura sobre la vinculación: Procesos interactivos entre actores, redes de conocimiento, espacios regionales*. La Habana: Universidad de la Habana.
- Colás, M., & Buendía, L (1992). *Investigación educativa*. Sevilla: Alfar.
- Echeverría, B. (2002). *Gestión de la Competencia de Acción Profesional*. Barcelona: Universidad de Barcelona.
- Echeverría, B (2005). *Competencias de acción de los profesionales de la orientación*. Madrid: ESIC
- Fressoli, M. Dias, R., & Thomas, H. (2014). Innovation and Inclusive Development in the South: A Critical Perspective. En E. Medina, C. Holmes & I. Da Costa (Eds.), *Beyond Imported Magic, Science, Technology and Society in Latin America* (pp. 47-66). Londres: MIT Press.
- Lorenz, E., & Lundvall, B.A. (2006). *How Europe's Economies Learn*. Oxford: Oxford University Press.
- Lundvall, B. A. (1992). *National Systems of Innovation: Towards a Theory of Innovation and Interactive Learning*. London: Pinter Publishers.
- Miles, M.B & Huberman, A (1994). *Qualitative data analysis: an expanded sourcebook*. Newbury Park, CA: Sage.
- Núñez, J. (2010). Educación Superior y Desarrollo Local: la agenda emergente y sus demandas conceptuales. *Boletín del Programa Ramal Gestión Universitaria del Conocimiento y la Innovación para el Desarrollo (GUCID)*, 1, 10-21.
- Ortiz, R., la O, M., & Miranda, S. (2017). *Sistema de Innovación Agropecuario Local: conformación y formulación. En texto de apoyo al diplomado para la implementación del Sistema de Innovación Agropecuario Local*. Mayabeque: Ediciones INCA.

- Pozo, M. T., Poza, F., & Gutiérrez, J. (2003). *Formación en Animación Socio-Cultural: Competencia de Acción y Criterios de Calidad*. Sevilla: Instituto Andaluz de la Juventud.
- Sen, A. (1999). *Development As Freedom*. New York: Anchor Books.