



ISSN: 2230-9926

Available online at <http://www.journalijdr.com>

IJDR

International Journal of Development Research

Vol. 11, Issue, 03, pp.45556-45559, March, 2021

<https://doi.org/10.37118/ijdr.21206.03.2021>



RESEARCH ARTICLE

OPEN ACCESS

PROFESSIONAL EDUCATION IN THE FIELD: CURRICULAR TENSIONS AND CONFLICTS FOR THE INTEGRAL TRAINING OF WORKERS

1,*José Ronaldo Silva dos Santos, 2Fátima Moraes Garcia, 3José Jackson Reis dos Santos and 4Benedito Eugenio

¹Mestre em Ensino (UESB), Coordenador Pedagógico da Rede Estadual de Ensino da Bahia

²Doutora em Educação (UFPR), Professora da Universidade Estadual do Sudoeste da Bahia (UESB)

³Doutor em Educação (UFRN), Professor da Universidade Estadual do Sudoeste da Bahia e do Programa de Pós-graduação em Ensino

⁴Doutor em Educação (UNICAMP), Professor da Universidade Estadual do Sudoeste da Bahia e do Programa de Pós-graduação em Ensino

ARTICLE INFO

Article History:

Received 24th January, 2021

Received in revised form

29th January, 2021

Accepted 10th February, 2021

Published online 30th March, 2021

Key Words:

Spent coffee grounds,
Ofloxacin, Adsorption.

*Corresponding author:

José Ronaldo Silva dos Santos

ABSTRACT

The adsorption of ofloxacin (OFL) by the spent coffee grounds (SCGs) was investigated. The effect of solution pH and the amount of SCGs were also studied. The optimum solution pH and amount of SCGs were 6 and 100 mg, respectively. The adsorption isotherms were well described by the Henry model. This suggested that the strong interaction of OFL with the SCGs. Therefore, SCGs, as a green, environmental-friendly adsorbent, can be applied to the adsorption of contaminants in environment.

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Citation: José Ronaldo Silva dos Santos, Fátima Moraes Garcia, José Jackson Reis dos Santos and Benedito Eugenio. "Professional education in the field: curricular tensions and conflicts for the integral training of workers", *International Journal of Development Research*, 11, (03), 45556-45559.

INTRODUCTION

The work is part of research developed with the Group of Studies and Research in Rural Education (GEPEC), linked to the Post-Graduate Program in Teaching (PPGE) of the State University of Southwest Bahia (UESB). The text analyzes the conditions of access to professional education and the contradictions from the curriculum development process in the context of the Technical Course in Agroecology (TCA). It also reflects on the trajectory and public policies for the provision of professional secondary education in Brazil, highlighting the National Program for the Integration of Basic Education with Professional Education, in the Young and Adult Education Modality (PROEJA), showing the theoretical, methodological, and philosophical bases, confronting them with the expectations of an integrated human training curriculum (Brasil, 2006; 2007; 2012).

The research aimed to problematize the conditions of access to education in this modality, in the context of the TCA, developed by the MST, in agrarian reform settlements in the Municipality of Barra Choça, showing that the policies for the provision of professional education in the State of Bahia occur from the actions of the Superintendence of Professional and Territorial Education (SUPROT). These policies have been available in the context of rural education and, in particular, in the reality of agrarian reform settlements, in a very deficient and contradictory way for an integrated and omnilateral education perspective, which, minimally, respected the different normative milestones of this educational modality. As we know, "[...] education is a field of human activity and education professionals did not build this field according to their ideas, but following the material and objective conditions consolidated [...] in the different social relationships" (Lombardi, 2010, p.26). On the other hand, according to Frigotto (1993, p.26), "[...] the education of the different social groups of workers must take

place to qualify them technically, socially and ideologically for work". In this perspective of analysis, the following reflections from the data produced throughout the research show the unilateral relationship between education and work established in the capitalist mode of production, showing that the interests of capital and, consequently, of its exploitation model, determine the form and content of how the training of workers in different social contexts will take place.

METHODS

The theoretical base for data analysis purposes was the Marxist categories such as work, contradiction, totality, and praxis, in dialogue with the content categories: integrated high school, polytechnic, work as an educational principle, human capital theory. The field research was carried out between 2017 and 2018, along with the Technical Course in Agroecology (TCA), which works at the Territorial Center for Professional Education of Vitória da Conquista, Bahia, more specifically, in the "Cangussu Settlement", in the city from Barra do Choça, Bahia. Participants of the research were young and adult students of the Technician in Agroecology classes, educators, and school unit managers. These people come from the agrarian reform of the Cangussu, Mocambo, Pátria Livre, and other rural communities. Three sources of data were fundamental for the study: a) the theoretical-conceptual nature, based on the theoretical reference adopted in a Marxist perspective; b) the theoretical-material nature, from several documents, such as archives of the students' school life, the pedagogical proposal of the course, curricular component menus, pedagogical matrices, decrees, ordinances; c) practice data, produced through questionnaires and interviews applied to students and coordination of the referred course. Preserving the anonymity of the research participants, we do not present their real names in the interview excerpts mentioned in this article.

RESULTS AND DISCUSSION

The Technical Course in Agroecology: problematizing the context and apprehending contradictions: The Technical Course in Agroecology took place after struggles developed by the Movement of Landless Rural Workers (MST), with the Secretary of Education of the State of Bahia (SEC-BA). It is located in the southwest region, under the responsibility of the Territorial Education Center - NTE 20, which, in its technical-operational aspect, had its offer at the Territorial Center for Professional Education (CETEP), Annex-Settlement Cangussu and linked to CETEP in the city of Vitória da Conquista. The demand for courses in the area of natural resources, mainly in the PROEJA modality, was due to the reality set by the settlements for the development of productive work in the field, aiming at a better formation of the individuals that met the expectations of family production, sustainability, agroecological production, among others, also considering the young and adult people who, historically, have been excluded from schooling and training processes in general.

Because of the social problem, the demand for this type of training in the areas of agrarian reform in the municipality of Barra do Choça is great. However, a significant part of these young people has left for urban centers in search of training possibilities due to the need for training insertion in the world of work. This has also forced individuals to drop out of school. On the other hand, the State has not implemented educational policies for the countryside, which ensure access and continuity of studies, as well as not meeting the socio-productive desires of peasant families to contribute to the improvement of the family unit of production, therefore, encouraging young people to stay in the countryside, providing food security and income generation. Against all this, the MST has been fighting for land in southwest Bahia, promoting demands for public policies to support agrarian reform, including access to land, credits, production, education, among others.

In the current context, it also fights for the right to basic education and technical and professional training of individuals. Even with enormous difficulties, these demands arise from the pedagogical experiences of formal and non-formal education, developed together with public institutions and support entities, with the field individuals, through their social and union organizations. The struggle for land reform has increased the demand for education, which is also a problem for the development of these settlements. On the other hand, in contemporary times, neoliberal policies are implemented from the insertion of capitalism in the field, such as monoculture of various food products, intensive use of pesticides and agricultural inputs, requiring a type of technical and professional training capable of enabling the coping with this hegemonic model.

The constitution of these demands, for the socio-economic development of peasant-workers in the field, associated with the experiences of professional and technological education developed in the settlements aimed to insert, the conditions for improving life, the dialogue between the knowledge in the struggle of rural workers, allowing the joining of sustainable production systems and professional training (Ciavatta, 1984; 2005; Ciavatta; Frigotto, 2012). Through the mobilization and organization of the peasant struggle for agrarian reform, the organizations can aim at building an educational model, which contributes to new technological matrices of production, more appropriate to the reality of the individuals, considering the values and experiences of the field, in the perspective of identifying its limits and possibilities in the search for an integrated training of young and adult people. The achievement of professional education in the PROEJA modality, based on Technical Courses in Agriculture and Agroecology, took place through many struggles, challenges, and clashes with public authorities from the perspective of their service in the field respecting their demands.

In this context, we highlight the need for professional training in the field as a condition of subjective public law among the factors that contributed to the struggle for professional education, in which professional education is ensured for the development of human potential, with access to culture, technical training, and contextualization about the nature of work, which takes place in this space and the offer of this type of education is of fundamental importance (Saviani, 2007; Brasil, 2012). Therefore, the construction of these training processes understands that these courses can also enable not only professionalization in the area of agroecology but also enable the construction of knowledge and improvements around the construction of a new field, sustainably and healthily. In this perspective, TCA can enable the deepening of associative through the practice and acquisition of professional knowledge and responsibilities, contributing to the strengthening of the principles of cooperation and the development of a socio-professional project for the reality of the individuals in the search for the expansion of human emancipation processes. All of this contributes to the individual to evaluate and reflect on the current socio-economic and political system, so that knowledge, skills, values, and forms do not become instruments that are measurable by the market, but something that belongs to them autonomously (Frigotto, 1993; 1998; 2002; 2013).

PROEJA and the contradictions in the field of curriculum development for integral training: In this section, we analyze the conditions of access to professional education in the PROEJA modality, and its contradictions placed in the curriculum development process in the context of TCA. When analyzing the TCA's curricular matrix, the course plan, and the methodological guidelines, several aspects mentioned are highlighted to the changes that have taken place, leading to the precariousness of the curriculum and the easing of professional training courses, with emphasis on the mandatory workload, the extinction of curricular components in several areas, mainly human and social. In this sense, it is not an easy task to transform the vast field of action-reflection about agroecology in the school form. This brings the risk and limit of performing this task peculiarly, considering only introductory and superficial aspects of the discussion, as seen in the TCA proposal, presented by the professional education network in Bahia.

In the course analyzed here, the curricular matrix is organized to offer a common basic formation in the curriculum integration process, with components such as philosophy, sociology, geography, history, mathematics, Portuguese, foreign language, chemistry, physics, arts, and biology. These subjects aim at the curricular integration of High School to technical-professional education, which, in this case, is composed of a base of training of the students, considering the aspects of agroecology. The contradiction in the TCA in the curriculum is that it is done superficially, with an introductory character, hindering to deepen the fundamentals of agroecology as a productive matrix and alternative life organization. Undoubtedly, implementing the agroecological proposal in the school form requires greater challenges and theoretical-practical efforts in the teaching-learning process.

The curriculum has different subjects as a facilitating mechanism for the development of learning, based on certain practices and contents considered essential for the training of technicians in Agroecology. However, because it is a subject of such broad scope, with conceptual variations, marked by conflicts and disputes over the way of production and organization of life in the countryside, it is necessary to review the process of training students in this context. From the reports obtained in the interviews, we found that educators were not properly prepared for this reality or to develop and think about the agroecology curriculum. They lack training capable of considering the young and adult people, workers, who have different difficulties in staying in school and being able to complete their studies, given that, outside the limits of the State in the provision of public policy, there are already difficulties for the individuals by different factors (Frigotto; Ciavatta; Ramos, 2005).

In this way, the contradiction expressed in the curriculum regarding its fragmentation shows the need to develop a new pedagogical praxis, depending on the individuals' life situation, respecting the normative references and frameworks and guaranteeing rural education in Brazil. In this perspective, in dialogue with TCA educators, we found that to guarantee at least, the essential contents in the process of training in agroecology, the curriculum needs to be reframed. We found the testimonial below:

The curriculum does not meet the demands of professional training in agroecology and its subjects do not deepen the key concepts for effective training. In many cases, we had to adapt so that students could learn basic concepts such as soil, plant physiology, animal biology, pesticides, among others (INTERVIEWED 1, February 2018). The educators of the course also highlighted this observation regarding the curriculum for the distribution of the subjects and the expectations of the students' training from such curricular components. In the interview, they suggested changes in the curriculum proposal:

The suggestion is to decrease the workload of non-technical subjects, reorganizing the subjects, and increase the workload for technical subjects to at least 65% of the total workload, inserting subjects related to integrated pest management, regional crops, mechanization, irrigation, food processing, and certification (INTERVIEWED 2, February 2018).

The statements of the educators of the course show weaknesses in the curricular proposal, explaining that there is an unequal distribution between technical knowledge for general education. Another data identified is that professional-based knowledge is considered more important and relevant in the process of training individuals than those with a common base, denouncing the unilateral character and narrowing of this training. There is also a difficulty in understanding the meaning of PROEJA's proposal by the teachers, materialized in the form of TCA, regarding the perspective of curricular integration. As a result, they present different levels of difficulty and operationalization of the curriculum. By not conceiving the proposal that underlies curricular practices, in general, the individuals involved opt for adaptation and improvisation, contributing to exclusionary training processes.

As Kuenzer (1997, p. 28) confirms, workers have not, "[...] historically access to theoretical and methodological instruments that allowed them to systematize knowledge articulated to their hegemonic project", provoking processes of exclusion of individuals from knowledge historically produced by humanity. Thus, we perceive the little relation between theory and practice, showing a fragmented process of knowledge production, needing a pedagogical praxis ensuring the curricular integration associated with the pedagogical work of the school, valuing scientific and technological knowledge, and considering the need for an omnilateral formation of the students. The problems in TCA are also due to the structuring of the public school system in Brazil, which has assumed the discourse of flexibility and employability. Although the TCA's curricular matrix signals an integrated training to professional education in its execution, it was not possible to advance in this dialogue because there are no necessary mediations with the foundations proposed in the course (Kuenzer, 2001; Saviani, 1989).

Another aspect is related to the fragility of the debate about agroecology as fundamental in this formation process as a way to establish the relationship between education and work in the field. In the menus of the course plans, we observed that the study of the specific theme occurred only as an introduction to the process of training individuals with the construction of knowledge, sometimes superficial, disassociated from the world of work and the techniques and requirements necessary to the process and training human. These menus constitute the training base in this course; however, given the necessary wide debate around agroecology and the limitations placed in the contradictions of the materialization of this offer in the researched space, the non-compliance with such menus, in its entirety, was a great complicator to the training process. The professional education offered by the State has undergone significant changes such as the approval of the curricular guidelines for professional education, which, in theory, have an integrated training perspective, as can be seen in the information on the TCA menus in PROEJA mode. However, the data produced in the research showed the existence of profound contradictions between what is exposed in the pedagogical guidance documents and what happens inside the school institution.

CONCLUSION

The research showed profound contradictions and conflicts in the struggle to guarantee access to education in the context of the field. From this, we understand the totality of the objective under analysis in this article. These contradictions, as they are not exclusive to this reality, occur within the framework of the structural relationships established between the capital, the education, and the world of work and their implications for teaching, also present in the field. We realize that the TCA assumes a function of legitimizing public policies in education, given the development cycles and contradictions of the capital. This reduces the entire capacity of a society to carry out the full education of its individuals, attributing to the school the unique function of employability and determined by the place of work in society, prevailing the will of capital over life. The consequence of this insertion of capital in educational processes is the imposition on workers of a type of degrading, excluding school, which carries out the process of professional training for simple work, losing the capacity to broadly train individuals in an omnilateral perspective for the emancipation. The supply of vocational education is insufficient, compared to the number of people out of school and, consequently, of these training processes. Thus, most young people attend only high school without any prospect of integration in its more advanced forms based on the development of technologies and other forms of knowledge production and social inclusion. This is due to the predatory and metabolic model of capital, which, as it develops in technological terms, creates gaps and precariousness in the training and activity of workers overcoming their increasingly structural crises (Marx; Engels, 2007). This crisis reinforces the thesis of the need for the ever more appropriation of the omnilateral formation category as central to coping with this model imposed by the capital, which runs

out in its contradictions when it fails to make the relationship structurally viable between work and capital, relegating a large mass of workers to underemployment, to intermittent work. Human training in this perspective is linked to work as an instruction not only in its ontological sense but, fundamentally, in its historical dimension, in the constitution of individuals as social and political human beings. Even though the work has a double character, considering its historicity, it constitutes an educational principle. Through this, the development of individuals as human beings becomes possible. However, the overcoming of the contradictions in the world of work and the possibility of inserting work as an educational principle is due to its ontological dimension, given that the appropriation and discovery of work by the man goes beyond the limits of capitalism, although the alienated form is a constituent of this model (Saviani, 1989). For Marx (2007), the formation of the new man and the new woman overcomes the contradiction between intellectual and manual training. In this sense, the author defends the training processes associated with productive work and theoretical training, with the practical activity as a dimension of this relationship, and the appropriation of skills in doing things useful to the capitalist mode of exploitation, as seen in the contemporary context. (Mészáros, 2008; Marx, 1988).

Omnilaterality, the integrated training of individuals, in a perspective of structural change in society, requires the construction and defense of work and education as an activity to carry out human will, enabling conditions for human emancipation in all directions. Emancipation will only have meaning when any type of domination and exploitation of man by man is removed from human relationships, eliminating forms of domination in all senses. In this context, emancipation will constitute a process of destroying the fundamental contradiction between intellectual and manual work, and work will be the basic principle of transforming reality for human achievement (Marx, 1988).

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