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The implementation of pedagogical alternance in the subsequent technical in Agricultural course: challenges for technical training in the microregion of Cametá

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ABSTRACT. The article analyzes the challenges of implementing pedagogical alternance in the process of training students in the first classes of agricultural technician subsequent course of the IFPA Campus Cametá. The work used data obtained through documentary research about the proposal alternance in that course and questionnaires with teachers and students involved in the agricultural technician. It presents the challenges, considering the particularities of faculty and students, as well as the planning process and its various dimensions, such as, the organization and training of teachers, the formulation of the proposal alternance, the work dynamics of disciplinary contents in the articulation between school time and community time and the definition of evaluation criteria. Finally, we highlight the challenging aspects that stood out most throughout the development of the course of technicians in agriculture and livestock and the possibilities of overcoming proposed from the perspective of teachers and students.

Keywords: Pedagogical Alternance, Professional Training, Rural Education, Agricultural Course.

A implementação da alternância pedagógica no curso técnico subsequente em Agropecuária: desafios para a formação técnica na microrregião de Cametá

RESUMO. O artigo analisa os desafios da implementação da alternância pedagógica no processo de formação de alunos das primeiras turmas do curso subsequente de técnicos em Agropecuária do IFPA Campus Cametá. O trabalho utilizou dados obtidos por meio de pesquisa documental sobre a proposta da alternância no referido curso e questionários com docentes e discentes envolvidos do técnico em Agropecuária. Apresenta os desafios, considerando as particularidades do corpo docente e discente, bem como o processo de planejamento e suas diversas dimensões, tais como, a organização e formação dos professores, a formulação de proposta da alternância, a dinâmica de trabalho dos conteúdos disciplinares na articulação entre tempo-escola e tempo-comunidade e a definição de critérios de avaliação. Por fim, destacamos os aspectos mais desafiadores ao longo do desenvolvimento do curso de técnicos em agropecuária e as possibilidades de sua superação a partir das perspectivas de docentes e discentes.

Palavras-chave: Alternância Pedagógica, Formação Profissional, Educação do Campo, Curso de Agropecuária.

La implementación de la alternancia pedagógica en el curso Técnico Subsecuente en Agropecuaria: desafíos a la formación técnica en la microrregión de Cametá

RESUMEN. El artículo analiza los desafíos de la implementación de la alternancia pedagógica en proceso de formación de los alumnos de las primeras clases del curso técnico subsecuente en Agropecuaria del IFPA- Campus Cametá. El trabajo utilizo datos obtenidos por medio de una búsqueda documental de la propuesta de la alternancia además de cuestionarios con docentes y estudiantes pertenecientes de la referida clase pesquisada. Presentamos los desafíos, considerando las particularidades de los envueltos, bien como el proceso de planeamiento y sus diversas amplitud, tales como: la organización y formación de los profesores; la elaboración de la propuesta de la alternancia pedagógica; la dinámica del trabajo de los contenidos en el tocante en la articulación entre el cambios de los Tiempo Escuela - Tiempo Comunidad; y la definición de los procedimientos de evaluación. Por lo fin, destacamos los aspectos desafiantes que se destacaron al largo del desarrollo del curso técnico subsecuente en Agropecuaria y las posibilidades de superación según la perspectiva de los docentes y los estudiantes.

Palabras clave: Alternancia Pedagógica, Formación Profesional, Educación del Campo (campesina), Curso de Agropecuária.

Introduction

The present article discusses the process of implementing pedagogical alternance at Instituto Federal de Educação, Ciência e Tecnologia do Pará – IFPA, campus Cametá, based on the experience of teachers and students from the first classes (two) of the technical course in agriculture subsequent to high school, in the perspective of identifying the challenges of the training process of technicians through alternance.

The development of the research was guided by the methodological contribution of the research-action, in which the researcher, for being part of the researched environment, participates actively, intervening in the process when he observes the need of improvements of the observed practice (Tripp, 2005). The option for this methodology occurred exactly for the active participation of the researchers in the analyzed process as members of the faculty who worked on the training of the students of the technical course in agriculture.

The contextualization of the implementation of pedagogical alternance in the agricultural technician course was based on documentary analysis (Lüdke & André, 1986). Thus, the Campus Development Plan - PDC (IFPA, 2014), the Pedagogical Course Project - PPC (Sousa et al., 2016) were analyzed. The minutes and reports of integrating meetings realized by the course teachers and instruments of time-community orientation, which provided support to historicize the process of implementing the course.

We also used the semi-structured questionnaire application (Beaud & Weber, 2007), using Google Forms, with 12 teachers and 36 students. These questionnaires were divided into sections, which were designed: i) to profile teachers and students; ii) to understand how teachers have related the activities of time-school and time-community and the evaluation process and whether students agree with the methodologies used and their main limitations regarding the execution of time-community.

The objective of the teachers' profile was to diagnose their areas of education and academic and professional experience in relation to pedagogical alternance. Likewise, the survey of the student's profile aimed at identifying their origins and relationship with the rural environment, as well as the knowledge in relation to pedagogical alternance.

The application of the questionnaire also sought to understand which methodological tools were used by

teachers to conduct the time-community, as well as to understand whether the activities developed were considered in the evaluation process of their subjects. To the students the questions, in this sense, were aimed to understand their agreement with the methodology adopted by teachers, as well as to diagnose the difficulties faced by them to execution of the activities of time-community.

The work is structured in four parts, i.e., initially we present, in a succinct way, the history of the creation of the IFPA Campus in Cametá, state of Pará, and the appearance of the technical course in agriculture; in the sequence we describe the profile with the characterization of the teaching staff and students of the first classes of the course; later we analyzed the process of implementation of the pedagogical alternation, including the dimensions of planning, teaching and student formation, subjects and evaluation of activities; and in the final considerations we made some reflections about the challenges in the implementation of the referred course in alternance.

History of the IFPA Campus Cametá and the technical course in agriculture through training in alternance

The Campus Cametá appears in 2014 in the third expansion of the IFPA, with the objective of expanding the offer of vacancies in professional and technological education throughout the state of Pará. From 2014 to 2015, the campus management participated in meetings with several institutions and civil society representatives from the Cametá Microregion, in order to define the technological axes and priority courses to be implemented in the Campus, deliberating on Information and Communication and Natural Resources. It is worth noting that although the campus is based in Cametá, its mission is to serve not only the municipality that hosts it, but more four others, namely: Baião, Limoeiro do Ajurú, Mocajuba and Oeiras do Pará, all located in the region of Baixo Tocantins (Sousa et al., 2016).

The peculiar characteristics of the region, consisting mainly of social actors from the countryside and from the waters with productive activities focused predominantly on family agriculture, especially to cultivation of cassava and short cycle crops, in the production of cocoa and black pepper and the extraction of forest resources (especially açaí) and fishing, enhance the supply of courses of the Natural Resources axis, since Law 11. 892, of 29 December 2008, which institutes the Federal Network, preconizes that it is the mission of the Federal Institutes to offer technical, humanistic and

social training, based on social demand and regional peculiarities, as well as strengthening local productive chains in the region where the Campus is inserted (Brazil, 2008).

In this perspective, the Initial and Continued Training courses in Family Farmer and Technical Assistant in Agroecology were created at Campus Cametá, initially in the year 2016. which courses were realized in partnership with the Casa Familiar Rural (CFR) of Cametá and took place under pedagogical alternance, serving young farmers and children of farmers from Cametá, Oeiras do Pará and Limoeiro do Ajuru.

In this sense, based on public hearings and meetings held in the region with representatives of the municipalities, the Campus Cametá has adopted the natural resources axis as a priority in offering technical and technological courses. Thus, in 2017 the technical course in agriculture was created in the subsequent modality, using pedagogical alternance as a methodological contribution.

The option for pedagogical alternation, in these and other courses of Natural Resources axis of the Campus Cametá, presents itself as a political movement, in the search to meet the demand of social movements in the countryside, understanding that the reality of the region of the referred campus is constituted by a population mostly rural and lacking opportunities of formation that dialogue with its real demands (Bento & Sousa, 2017). It is important to emphasize that the institution of pedagogical alternance in professional training courses, especially in the area of agricultural sciences, presents itself as a way to contrast the old agricultural education, moving towards the construction of a professional education in the field (Marinho, 2016).

The teaching and learning experiences based on pedagogical alternation are tributaries of historical clashes of social movements in the countryside, critical to the model of schooling that disregards the existential conditions of the peasant. The experiences of pedagogy of alternance, born in France in 1935 and consolidated in Brazil in the 1960s, through the creation of Escolas Familiares Agrícolas (EFA's) in the State of Espírito Santo by the Movement of Promotional Education of Espírito Santo (Brazil, 2006). Subsequently, in the 1980s, the Casas Familiares Rurais (CFR's) were born in Alagoas, at that time without any relation to EFA's (Silva, 2010).

These first experiences defended the pedagogy of alternance, which consists of

a methodology of school teaching organization that combines different formative experiences distributed over different times and spaces, with the purpose a professional training (Teixeira et al, 2008), which consider four pillars, that are maintained in all regions, namely: end pillars - the integral and personalized formation (life project) and the development of the environment (social, economic, human, political, environmental) and the means pillars - the alternation (an appropriate methodology) and the local Association (families, professional institutions.) (Gowacki et al., 2009).

However, other experiences have been developed using the generic term pedagogical alternance, due to the adaptation of the principles of the pedagogy of alternation to the diverse contexts imposed by structural conditions or other conditions inherent to the institutions where they are developed and/or regional conditions. Thus, the term pedagogical alternance is adopted in this article, since the conditions of execution at IFPA Campus Cametá do not allow, at least in this first moment, the execution of the determining pillars of the Pedagogy of alternance.

The adoption of pedagogical alternance had as main objective the adequate formation to the peasants, based on a process that starts from the family, professional and daily social experience, to go towards the theory, the wisdoms of the academic programs, which then returns to the experiences and so on (Gimonet, 2007), in a movement that seeks the integration between school-family, theory-practice, work-education (Melo & Silva, 2012).

In that way, the methodology of pedagogical alternance establishes an expressive relationship between the three educational agencies - family, community and school. It proposes a teaching system in which the student alternates periods of learning in the family, in their own environment, with periods at school, these times being interconnected by means of specific pedagogical instruments, by association in a harmonious way, between family and community. It is a pedagogical action that aims to integral formation with the professionalization (Brazil, 2006).

In this direction, the professional formation that intended to be achieved from the subsequent technical course in Agriculture at Campus Cametá, seeks to break with the reductionist approach of conventional professional education, assuming a systemic and multidisciplinary perspective that provides an opportunity the dialogue of knowledge, provided by the

various educational spaces adopted - school, community, agricultural establishment, family - and by the integration of subjects during the formative process. It is believed, thus, to provide a more humanistic technical training process capable of reflecting on the limits and potentialities of agroecosystems and intervening based on methodologies that ensure active participation by farmers, overcoming thus, the conventional practices in rural areas action (Caporal, 2003).

Profile of teachers and students of the first classes of the Technical Course in Agriculture in pedagogical alternance

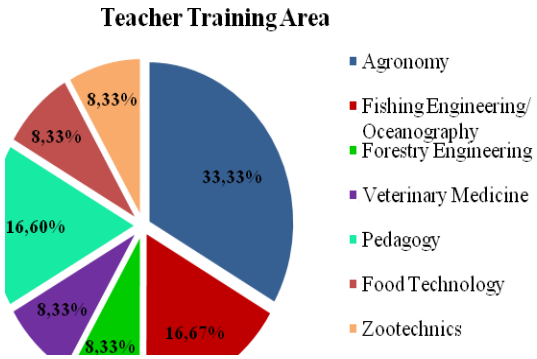
The analysis of the challenges to the implementation of pedagogical alternance, in the process of training agricultural technicians, leads us to the need to know who are the subjects involved in this process, that is, the students who entered the course and the teachers who worked in subjects of the course.

Profile of teachers envolved in implementation of the Technical course in Agriculture

The teachers who worked on implementation of the technical course in agriculture and were recently civil servant and many had no previous experience with professional and technological teaching and, much less, in model of alternance, which present one of the central problems of this process.

Twelve teachers participated in the survey, which includes 75% of the teachers directly involved in the execution of the technical course in agriculture. It is important to highlight the profile of these teachers, to understand the context of challenges in the implementation of the course in alternance teaching at Campus Cametá. Below (Graph 1) we present the systematization of the teacher profile based on the questionnaires applied.

Graph 1 - Percentage of teachers of subsequent Technical course in Agriculture of Campus Cametá, by initial training.

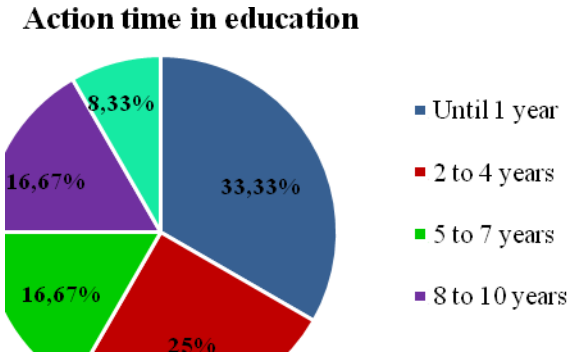


Source: Authors, 2017.

Therefore, it is observed that the predominant area of teacher training was agronomy, followed by fishing engineering/oceanography and pedagogy (field education). It is noteworthy that the teachers of education in the field are responsible for the subject of time-community, being the ones in charge of mobilizing the teaching staff of the course to carry out the planning and construction of instrumental, which is the script of development of activities, which will be used by students in the time-community. By the way, the position of teacher of Basic, Technical and Technological Education - EBTT in the field of education was created by Campus Cametá, exclusively to meet this particularity assumed by it in natural resources courses. Thus, it ocurred for the first time in the history of the IFPA, the offer of a position for teacher of Education in the Field, which is considered an important step in the institutionalization of education in the field within the institute and in the recognition of these professionals.

With regard to the time spent in training teachers at undergraduate level, it was found that more than 80% have less than eight years of initial training in bachelor's or master's degrees, although all have at least the title of master. The performance in education, in turn, was something new for more than 50% of teachers, who had less than one year and the maximum four of teaching experience. Below we present the time spent by teachers in graph 2.

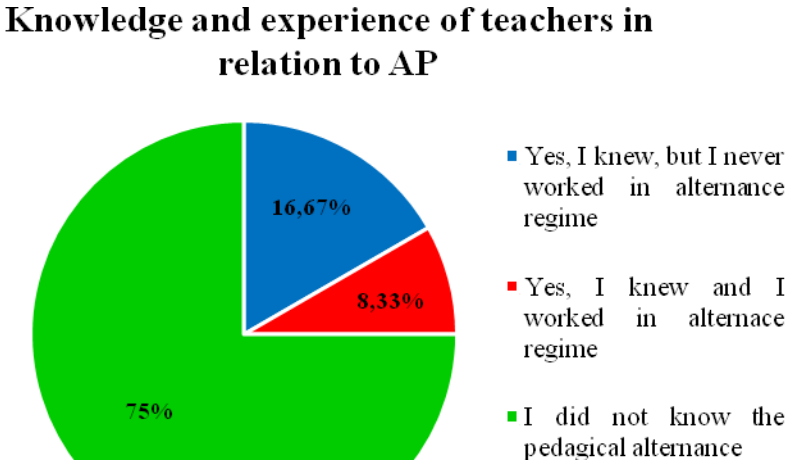
Graph 2 - Percentage with the time action of the teachers of the course.



Source: Authors, 2017

The main difficulty for the execution of alternation is the lack of knowledge and experience on the part of the teaching staff about pedagogical alternation, once it is 75% of the teachers were unaware and only one teacher who answered the questionnaire had practical experience in alternance teaching, as we can see in graph 3 below.

Graph 3 - Percentage of teacher on work of alternance training.



Source: Authors, 2017

Besides this, only field education teachers knew the principles of alternation, however, only theoretically, once their previous professional experiences were as pedagogical technicians in institutions that did not adopt the alternance and/or did not involve them in the process.

Although she did not answer the questionnaire, it is also important to highlight the contribution of the Philosophy teacher, who is trained in field education (human sciences), and therefore has practical experience in pedagogical alternance, and who contributed greatly in the initial steps of the first classes of the course, dissociating herself from the process later as a result of appointment on another IFPA campus.

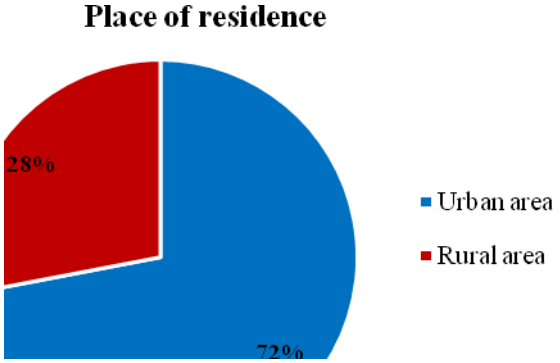
Profile of students of the first classes of the Technical course in Agriculture

The students of the first classes of the subsequent technical course in agricultural under pedagogical alternance are mostly young people up to 25 years old, but there is also a significant participation of the public over this age group (45%). In relation to gender, women are the majority, that is, 56%, reflecting the change that has occurred in the public

entering agrarian courses until recently, with a majority presence of men.

Another important information is the relationship of students with the rural area obtained through data on the origin. The graph below systematizes the relationship of students with the field, regarding to the place of residence.

Graph 4 - Percentage of students according to place of residence.



Source: Authors, 2017

For this we understand that the relationship of students with the rural environment does not occur simply because of their place of residence, we asked about their relationship linked to the dimensions of education and work and obtained as answers that 85% of students admit to be involved with the rural environment, while only 15% answered did not to have a direct relationship with the field, either because they do not live, study or work in rural areas.

It is important to highlight that the first classes of the technical course in agriculture were formed soon after the approval of the course´s operation, through a two-stage selection process. The first consisted in considering the grades of Portuguese and Mathematics of the 3rd year of high school or equivalent. The second stage occurred through an interview with the candidates about their life history and perspectives in relation to the course, because it is important in the selection process to know the link of the candidates with the reality of the field in the region of Baixo Tocantins.

Although the profile of the class was a little different from that idealized in the construction of the PPC of the Course that intended to reach mainly young and adults people who lived and worked in the rural area, 28% of the students rural communities came from other teaching

experiences in alternance, mainly through the Casa Familiar Rural de Cametá, these being those who already knew the alternance. The others, although they did not know it, started the course and soon after the first community time they approved the methodology and, when the questionnaire was applied (during the socialization of the 2nd community time), 100% of the class considered alternance teaching fundamental.

The first steps of the pedagogical alternation in the Technical course in Agriculture at IFPA campus Cametá: planning and training

The first steps for the implementation of pedagogical alternance in the technical course in agriculture were marked by a series of challenges, which began at the time of construction of the pedagogical project of the course with a teaching staff that mostly did not know the alternance. In the meantime, the participation of the teacher S.T.N.S., degree in field education (human sciences) and linked to the social movements of the field in southeastern Pará, was fundamental for the initial conduction of the process, with a series of planning meetings to make possible the integration of the curricular components and adoption of pedagogical practices that would enable a formative process for students.

From these initial planning meetings, there was a need for continuous training for the teachers of the course to understand the education of the field and the pedagogy of alternance, since this pedagogical proposal is not restricted to the technical course in agriculture, but to all the courses of the natural resources axis of IFPA Cametá.

Thus, training were conducted with the mediation of teachers S.T.N.S. and A.M.S.B., who discussed the principles of alternance with the teaching staff, but in addition, configured moments of reflection and debate, which contributed to the implementation of the alternation in the course and on campus.

Afterwards, the workshop "Pedagogy of alternation as an articulating element of the theoretical and practical relationship" was realized for two days, which discussed topics such as integration, planning and evaluation in pedagogical alternance, based on the experience of PRONERA Saberes da Terra, developed by the Castanhal campus in training of young farmers in the technical course in agriculture.

The integration and planning meetings are practiced in the course conduction, since the integration of the subjects during the time-community is desired. However, the training workshops were no longer carried out, due to the

maturation of the teaching staff and the learning provided by the practice.

However, in a planning meeting realized at the beginning of 2018, as a result of the entry of new teachers approved in a public contest, there was a need for continuous training to guarantee the permanence of formative activities in alternance.

In this sense, the teachers of education of the field, at a later moment, during a presentation of the definition of alternation to the social body of the campus in the III Pedagogical Week, in 2018, proposed the offer of a biannual formation aimed at solving difficulties identified by each teacher throughout the semester.

However, it should be noted that the continuous formation was not limited to these moments, also guaranteed the constant dialogue between all the teachers of the campus, in order to encourage the exchange of ideas and experiences, with a view to solving any problem immediately after its identification.

From planning to practice: student training (and especially teacher)

The first classes of the subsequent technical course in agriculture at campus Cametá, when they put into practice the pedagogical alternation, began a process of student formation, but, above all, teacher, being for this reason, an interesting exercise of self-criticism and reorientation of the process along the formative path (Bento & Sousa, 2017).

The alternance in the first time-community after the organization of the research in the first time-school has as its scope the study of the communities, it is an important contextualization for the development of the next axes, dedicated to research in agricultural and/or agroextractivist establishments in the region, culminating in an intervention project to be proposed based on the problems identified from the dialogue with farmers during the times-communities.

In this way, the formative journey that will be analyzed, as already mentioned, involves the following stages: 1) planning of the formative journey, times-school and times-communities; 2) life history workshop; 3) development of the subjects from the first to the third axis; 4) orientation and accompaniment of the times-communities I, II and III; 5) socialization of the times-communities I, II and III; and 6) process of evaluation by the teachers.

Planning

The planning of the initial stage of the agricultural course allowed to

educators a familiarization with a method little or even unknown by majority, as already noted. As a general basis for this moment of teacher training, the notebooks of the collection Saberes da Terra (Brazil, 2017) served as a basis for rehearsing the first steps of teachers, especially the life history workshop.

This exercise, initially, was fundamental to determine the chronology of offer of the subjects during the semester, in order to favor the execution of the time-community, contemplating its objective. In this sense, some changes were made, including the distribution of subjects along the axes, because it was found that anticipated in formative journey, being necessary to move it to the next time-community, although always maintaining it within the semester determined by the PPC.

This practice, however, had to be rethought from the 3rd semester of the course, due to the entrance of new forms, because it was not possible to maintain the initial structure of subjects offer in a condensed way by axes, due to generate conflict of time in the capacity of teachers in the other forms, since some subjects, with higher workload, had up to 12 hours lesson per week in each class. Thus, the integrated time-community orientation was maintained.

Planning meetings are also used to build the instruments that will be proposed to students in each time-community. On these occasions, the teachers discuss the guiding issues that will need to be approach by students in field research and that should be included in the report to be prepared by them. The systematization is carried out by the teachers of Field Education, who are responsible for the subject of time-community and, therefore, organize all information in a document that is delivered to the students at the time of orientation before the students go to the field. This document is named in the course of script or guide of the time-community and has the participation of the students in discussion of all proposed activities which led to adjustments of issues to be researched, the withdrawal of some proposals and the inclusion of others.

Life history workshop

The life history workshop [i]was held as a welcoming activity for the students and took place during the first three school days of the course. It presented the objective to integrate them and promote the socialization of different experiences in each region. The programming involved group dynamics that encouraged the participation of students, in order to value their experiences in the educational

process. The following activities were developed: mask workshop, video documentary debate, social cartography and socialization of the socio-productive and cultural context of students from memory.

The activities had as objective, in addition to enabling the presentation and integration of the students, to trace the socio-cultural profile of the students who entered the course, for which it was fundamental the elaboration of map of the region of origin of the students, which provided the recognition of the territory attended by the course and the socialization of information related to the most significant sociocultural aspects of the regions in which the students intended to develop the time-community throughout the course.

It is important to point out that these activities included important subsidies for the planning of subjects, the time-school and time-community. The questionnaire written and socialized through collective presentations served as a guide for the deepening of important issues for the development of pedagogical alternation. The work emphasized the issues that most sensitized the students in the exposition, such as the history of formation of the communities they intended to research.

Development of subjects

The subjects developed in the first time-school of the formative axis I, as instrumental Portuguese and computer science, assisted in the process of writing and systematizing the reports of time-community and, theoretical and introductory subjects, such as history of the Amazonian peasantry, agriculture and agroecology, systemic focus and study of the agricultural establishment offered elements for approaching the reality experienced by students and still little understood by teachers.

The students' reports on the transformation of work relations in the field and local cultural manifestations, for example, were problematized in the history of peasantry, contextualizing local transformations to the process of territorialization and historical rooting of the peasant way of life in the Amazon. The other subjects mentioned followed the same logic, seeking even more consistent data during time-community I.

It is important to emphasize that the proposal of pedagogical alternance in the development of the formative path is to promote non-technical formation, making it necessary the articulation between the technical subjects with the research in the rural establishments, guiding the scientific

and humanistic development inspired by the guiding principles of agroecology.

As ponctuated by Bento & Sousa (2017), to contrast the training that occurs in an instrumental manner and based exclusively on the empirical application of technical knowledge, it is defend in the technical course in agriculture of IFPA Cametá, the education according to the principle of omnilaterality, which according to Lima et al. (2016), that is:

> Conceiving the formative act as a potentiator of the integration between the various dimensions of life, of which work, the science, the technology, the culture, the politics and economics constitute inseparable fields for the understanding of human practices in their entirety (Lima et al., 2016, p. 59).

In this sense, time-Community I, as mentioned, sought to diagnose rural communities in the region of campus coverage, taking place in different communities in the municipalities of Cametá, Baião, Mocajuba and Oeiras do Pará. At this first moment, general questions were raised about the socio-environmental, cultural and productive aspects of the regions, providing support for the evaluation of the subjects taught in axis I, and also for the development of the subjects of axis II, which as in the previous time-school, sought to contextualize the theoretical contents with the local reality.

The same principle was followed in the other axes which is to know the production establishments, raising problems to be explored for the proposition of an intervention plan to improve the lot[ii], an action that will be made by constant dialogue between the students, the teachers and the family farmers in the region.

It is emphasized that the pedagogical alternance is not conceived only in alternating periods at "school and in the family", as pointed out Jesus (2011), therefore it requires the articulation of knowledge between the different training spaces, it is necessary that the teaching staff be prepared to contextualize and problematize the contents taught in the classroom with the local reality.

This articulation, according to Queiroz (2004) is the great challenge of schools that work in alternance regime, because it is not only about articulating two different spaces, but putting in coherent dialogue two distinct knowledges in a training project, which the author designates as "pedagogy of shared knowledge". In this process, the active participation of students, teachers and family (farmers) is necessary for the success of the training.

In the case under analysis, the teachers have understood this premise and seek during the development of the

subjects to articulate the technical knowledge to knowledge accumulated by students and instruct them to identify in communities during the time-community, aspects related to issues addressed in classroom, allowing the contextualization and dialogue of knowledge after their return to the time-school.

It stands out that, although many teachers recognize the necessity for maturity in understanding the alternance in order to achieve better integration of regional issues with the content of the disciplines, the implementation of pedagogical alternation has allowed important dialogue with local communities and it will provide opportunities for the training of technicians committed to local family agriculture.

Orientation and monitoring of Time-community

The time-community orientations are carried out at the end of the time-school of each training axis, on a date defined by the teachers of Field Education who gather the class to present and discuss the instruments to be used in the time-community and the methodologies that can be used. This is a moment of collective discussion, when teachers and students discuss the issues that will be used during the research to be conducted in the time-community, as well as are presented and oriented the use of methodological tools for data collection and analysis.

The orientation of time-community I, for example, consisted in the presentation of a detailed instrument of essential issues for the construction of diagnoses of the communities of the regions surveyed, aiming to characterize the historical, social, cultural and productive aspects of the region of Baixo Tocantins. At this time the educators indicate possible methodologies for collecting and systematizing research data, such as: community map, agricultural calendar, cross-sectional walk, interviews, photographs etc.

At the time of orientations, the teachers participate of axis in progress and the next of subjects because the activities of the time-community continue in the subsequent semester. On some occasions were adopted individual orientations with the groups of students to resolve specific doubts of the group and present particular tools to each situation.

As the course progressed and the teams began to deepening of diagnoses, the particular orientations became increasingly necessary, realizing the need to allocate "advisors" to each group. These advisors, usually teachers in the areas related to the identified problems, had greater contact with their group of mentors.

In addition to orientation, constant accompaniments of students in the field are carried out during the development of time-community also. The initial contact with local leaders and the choice of communities, however, were made exclusively by students, ensuring their autonomy in dialogue with the interlocutors and the survey of issues most relevant to the community.

From the second time-community, the accompaniment began to be realized in communities and the date was previously marked by groups. About three teachers per group participated in these accompaniment, with the presence of one of the teachers responsible for the time-community subject[iii]. These moments were fundamental to ensure the closer relationship between teachers, students and farmers, configuring themselves as important exchanges of knowledge, in which teachers and students observe the practices developed by farmers and bring technical knowledge that allows improving their production.

Socialization of Time-community

The socialization of time-community occurs one day after the return to time-school with the presence of all teachers, in oral presentation form and delivery of written work. The result of the experience of pedagogical alternance was more evident at that moment, when the students brought different views of the different realities of the regions surveyed.

The form of systematization and presentation of the results of the research also offered different didactic resources that the students appropriated since the time-school, such as those offered by informatics for presentation of citations, photographs, maps, history of the communities, among others.

In this sense, there was also the presentation of agricultural maquets and calendars by some groups, which is an important stimulus factor in improving the future work of the other groups. The exploration of didactic resources at the beginning of the course is positive, because on the one hand, it brings a familiarity with the scientific methodology for the exercise of the technical profession, and on the other hand it contemplates the objective of stimulating epistemological curiosity (Freire, 1997).

The beginning of axis I of the course, aimed to study of the socio-productive diagnosis of the community, allowed the apprehension of conflicts between local economic interests and the defense of sustainable development. The groups observed socio-environmental problems related to the access of natural resources,

such as those pointed out as significant factors in the reduction of water volume, either due to the devastation of riparian forest, or by the construction of bathhouses within communities.

Other problems were identified with the progress of the research, it presenting issues related to agricultural production, such as low tillage productivity, pest attack, difficulties in the implementation of irrigation systems, technical problems regarding fish cultivation, necessity to improve small animal breeding systems and hygienic-sanitary problems in the processing of cassava for flour production.

In addition to the oral presentation during the socialization, the data collected in the field were systematized by the students in reports, which are delivered to teachers and evaluated for composition of the grades of the subjects according to the objective of the time-community and the instrumentals.

Evaluation

The evaluation of the knowledge acquired by the students in the process of articulation of the study times intended to reflect on the expected results in the planning of pedagogical practice, especially in the articulation of the knowledge of time-school and the problematization of research in time-community.

This stage of training was the most problematic in the educational process during the initial stage of implementation of the alternance in the course, because the evaluation performed by the teachers did not have criteria relating the activities of time-school and the first time-community. Some teachers did not even consider the activities of the time-community in the evaluation process of their disciplines.

However, after some complaints from the students who felt unmotivated to continue the time-community research, if it was not part of the evaluation process and from the reflection of the teaching staff on the different training spaces (school and community), the teachers understood that the time-community is part of the formative process, as Queiroz (2004) argues, therefore it is necessary to consider as part of the evaluation process.

In this sense, from the second time-community their activities began to compose the criteria for evaluating the subjects of the semester. It is emphasized that a common evaluation process has not yet been reached for all teachers, because they perform their evaluations in a disjointed way of the other disciplines and assigning different weights for time-community activities, which range from 30

to 50% of the total grade of the subjects, as can be seen in Table 1, below.

Table 1 – Answer of teachers in relation to the weight attributed to time-community in the evaluation process of their subjects.

If you consider the time-community activities in evaluation of your subject, how have you done and what weight is intended for TC?
The activites of the time-community constitute 50% of the evaluation of the subjects and it consists in evaluation of the time-community report and presentation in the socialization of the TC.
Seminars and reports. Until 30% of the grade.
50%, evaluation of the report and presentation.
I will do considering the involvement of the students in the activities, their development during the process and their contributions. The weight will be around 50%.
The students socialize the experiences lived in the TC after return from the time-community with the teachers of the other subjects of the course and classmates in classroom, in the form of seminar which is assigned a score of 0-10.
50% for participation in time-community, 25% in the preparation of the report and 25% for the presentation of the report.
In this case it is 100% due to being the subject of time-community, on the other would define from 30% to 50% taking in consider the grade of the time-community.

Source: Authors, 2017.

In addition, some students highlighted the importance of realize a closer monitoring to the groups too, identifying students who do not contribute to the team and assigning them different grades.

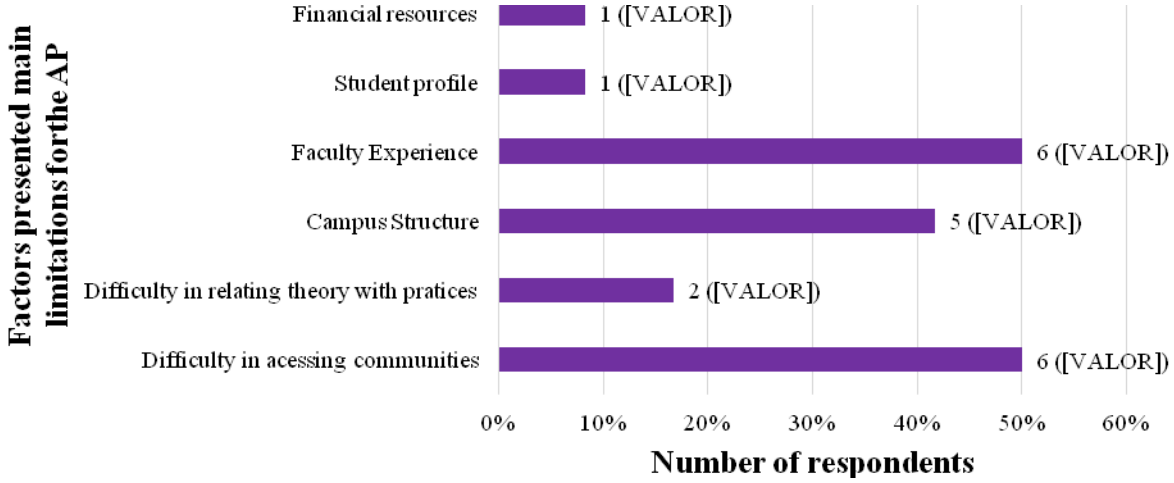
Limits and propositions for the consolidation of alternance in the technical course in Agriculture

The recognition of the importance of pedagogical alternance for the technical course in agriculture of IFPA Cametá, both for teachers and students of the course is indisputable; however, there are many challenges for the execution and consolidation of the alternance in the course and on campus.

Therefore, the teachers and the students were asked about in their perceptions, which were the main factors that presented themselves as limiting to the execution and consolidation of pedagogical alternance in the course. This survey occurred through a semi-structured questionnaire, with some response options complemented later from the course planning meetings with the teachers and informal conversations with the students.

Thus, the teachers highlighted six factors as the main limitations to pedagogical alternance, being among the most cited are the difficulty of access to communities, the experience of the teaching staff in the teaching by alternance and the structure of the Campus Cametá, as shown in Graph 5 below.

Graph 5 – The factors presented by teachers as the main limiting factors for the consolidation of pedagogical alternance in the Technical course in Agriculture of the Campus Cametá.



* The teachers could cite more than one factor as limiting factors, which explains more than 12 answers, since questionnaires were applied to only 12 teachers.

Source: Authors, 2017

These factors have been scored in this research repeatedly, they are reflecting the problems faced since the beginning of the course, and some measures have also emerged in an attempt to overcome them, such as meetings and workshops of teacher training.

The question regarding to difficulty of access to communities, on the other hand, is a reflection in the first place of the class constitution, which is mostly urban, and secondly, of the decision made by some groups of students who made the choice to realize the time-community activity in very remote locations, and it is difficult for them to move there, and for teachers, at the time of accompanishment since the campus has only one vehicle.

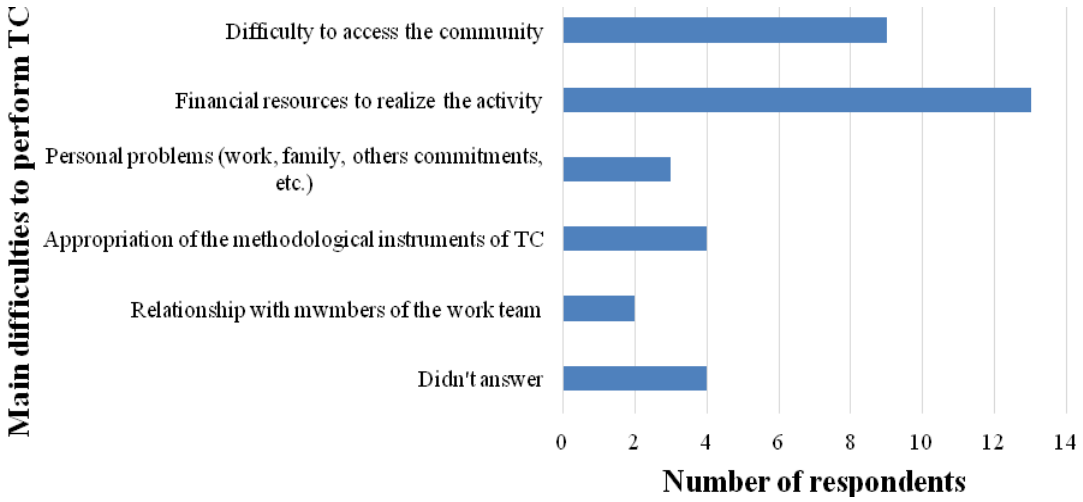
These questions were resumed and others added during the planning meeting realized in January 2018, where the teachers did the retrospective of the experience experienced in the first two semesters of the course and they presented some questions that could threaten the consolidation of the agricultural course in pedagogical alternance. On occasion, it was remembered that although the structure of the Campus – which is still under construction, it was operating in an interim space provided by municipal government – and the budget matrix reduced has not yet limited the execution of time-community activities, it may in the near future to prejudice the development of pedagogical alternance in courses of the

campus, if actions are not taken to overcome the identified problems.

In this respect some questions were presented that were systematized and forwarded to the general direction of the campus after the meeting, so that steps were taken to ensure the alternance in the future. The points were presented: i) the availability of financial resources to support students in time-community; (ii) the guarantee of life insurance for students and teachers during the time-community; iii) the guarantee of transport to assist in the displacement of students and teachers; iv) the firming of partnerships with local institutions and representations of organized civil society and social movements of the field, in order to enable structures of permanence of students and teachers in the field during the time-community.

The difficulties presented by the students (Graph 6) followed the same principle and these mainly scored: i) the lack of financial resources to perform the time-community, since it is not reserved to allow resources of the campus budget matrix to support students in the time-community; and ii) the difficulty of access to communities, since the campus does not have enough vehicles to assist the arrival of students to the places where they realize the time-community. In summary, a factor leads to the other, since, if students received financial assistance for the execution of the time-community, they could buy in addition to food and other consumption materials, fuel to support the displacement to communities.

Graph 6 – Main difficulties presented by students to perform time-community.



Source: Authors, 2017

In this perspective, the teachers point out some paths that can be followed to consolidate the pedagogical alternance in the course and enhance its contribution to the formation of students. The Table 2 below shows some of the suggestions.

Table 2 – Propositions of changes to enhance the pedagogical alternation in the course.

What do you consider that could be changed in the conduction of pedagogical alternance in the Technical course in Agriculture to enhance the contribution of alternation to student training?
Most students need financial assistance to spend the necessary time in the working community.
1 - Work better the evaluation formo f the in time-community. 2 - Rethink the training cycles and perhaps have a longer time-community time at the end of the semester where the instrumentals approach issues involving all the disciplines of the semester. Thus we can have at the end of the first semester a complete diagnosis (community and property), in the middle of the 2 semester the preparation of action plan, at the end of the second semester the implementation of the action plan, at the end of the 3 semester the evaluation of the action plan implemented.
Increased of resources and time for practical activities, as well as practical training of teacher.
Continuing training for teachers who do not yet know the work with alternance to make clearer the conduct of times-community.
Prioritize actions of student assistance to students, because many of them are from other municipalities; exchange of experience with other campuses and institutions; extracurricular workshops based on technical e.g. soil analysis; training courses for teachers and; participation in events in the area.

Source: Authors, 2017.

Therefore, the propositions respond to the main limits presented in this research, including considering the main demands of the students. Thus, it is considered relevant mainly because it understands that the campus intends to institutionalize the pedagogical alternance in all its courses, it makes necessary to invest in teacher training, in order to ensure the composition of a faculty qualified and committed to professional education in the field and provide in its financial planning, the resources necessary to conduct the alternation.

In this respect, Marinho (2016), from similar experience – the implementation of the technical course in Agriculture integrated to high school in a pedagogical alternance regime at IFPA campus Marabá Rural – it highlights that is necessary to articulate the pedagogical dimensions (research, teaching and extension) with the Administration and Planning, in order to "ensure the logistics and the necessary support for the training of students in quantity and timely, in order to allow the execution of educational actions, thus enabling the integration of the formative path and theory and practice relationship" (Marinho, 2016, p. 214).

In the same perspective, Moura, Dremiski, Borges and Souza (2013) highlight the importance of institutional partnerships, which was fundamental in

conducting the process of pedagogical alternance in the technical course in Agroecology of the Paranaguá campus of IFPR, it held in the municipality of Ortigueira-PR, where the municipality government, the Brigada do MST, the Sindicato dos Trabalhadores Rurais an association of producers ensured the structure of permanence of students and spaces for the classes of the course to occur in some moments in an itinerant way, within the students communities of origin ensuring their permanence in the course and success in training.

The institutional partnerships have been strong allies to ensure the actions at Campus Cametá, however, the approximation of representations of rural communities, although it has advanced, especially after the beginning of the alternance still needs to be enhanced to ensure the structural conditions of permanence of students in the communities.

The consideration of the students, although they also present prepositions related to the necessity for financial resources to realization field activities, they were more focused on the pedagogical dimension, especially the need for greater teacher accompaniment in the conduct of time-community research, as can be observed in Table 3.

Table 3 – Propositions of changes presented by students to improve pedagogical alternance in the course.

In your opinion, what could be changed in conduct of time-community?
I'd like you to give more days to the time-community.
More participation of teachers to ask questions that you need at that moment.
Only the orientation so that it is clearer and more precise than what should be.
The number of people in the group, because many of the time one fia (sic) in the other and ends up doing nothing.
Orientation should be by group, because each community with its particularity.
More time to do the job.
Have a teacher responsible for the team where he would be doing measurement, helping to do the job.
The presence of a mentor on the side of students.
It passes the guidelines more simply.
Greater presence of teachers and material for the preparation of maquets and others.
That IFPA provide technological conditions to students, such as computers.
They should help us with a small allowance because with each visit we have great difficulty, at least in transportation.
As it is distant and we do not have financial help from the others, for some of the team it becomes difficult the issue of transportation.
Charge students what was actually passed in the classroom.
Have a group advisor.
The teachers going on the property.
Reduce the amount of time-community (reduce the months).

Source: Authors, 2017.

The necessity for closer orientation of the students was an identified problem and as soon as exceeded, from the third time-community designated advisors by groups who are responsible for mediating the activities developed in the community, dialoguing with the students and the farmers in the construction of the plan to improve the identified problems. It is also their responsibility to assist students in the systematization of research data and writing of time-community reports.

Final considerations

Some challenges were overcome as soon as perceived, mainly by the engagement and willpower of the team that, although inexperienced in what consists of alternance training, they struggled to ensure a formative process suitable for the students. Others, however, still need special attention to ensure the institutionalization of alternance in the course and at campus. Among these, the training of teachers to work in field education and agroecology and the need for financial and logistical support to ensure access and permanence of students in the communities, as well as teacher monitoring during the time-community are highlighted.

In this sense, some propositions are presented by teachers and students in order to contribute to the solution of these problems, highlighting:

- Continuous training in field education and agroecology for the faculty;
- Articulation between teaching and planning, in order to ensure logistical and financial support for the execution of the alternance.

It is believed that with the institution of the Política de Educação do Campo do IFPA, recently approved, the process of institutionalization of pedagogical alternance at Campus is favored because the guidelines presented by this document added to the experiences already accumulated by the social body of the course in the development of these first classes will give conditions to the (re)orientation of pedagogical practices and principles to be adopted in the conduct of the later classes.

Then, it is also important to highlight the necessity to reformulate the PPC of the Course, in order to (re)structure the curriculum and add the pedagogical principles of field education and agroecology, which although they are being executed, they are not properly registered in this important document. In addition, updating must also be proceed to attend the guidelines defined by the Política de Educação do Campo do IFPA which should be done by the year 2020.

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[i] This workshop, distinctly from the training workshop mentioned above, was held with the students of the two classes of the technical course in Agriculture in the first days of class, as a way of welcoming the classes.

[ii] The term 'lot' is used in the course to identify the total area of the properties where rural families live and work, independent of their size or the agricultural activities carried out on them.

[iii] At IFPA-Campus Cametá the time-community is registered as a subject because it has been this way that the institution is able to allocate workload for teachers to accompany students in their activities and also to compose the total workload of the course.

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