

ARTIGO

TRAINING TEACHERS IN A COLLECTIVE: SOME GUIDING PRINCIPLES¹

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ABSTRACT: This study falls within the field of research focused on teacher training, aiming to understand how these professionals are trained in a collective context, such as a study and research group. This article presents an interpretation of actions carried out in a study and research group, which, based on certain principles, can guide the teacher training of the participants. The intention is to view this training from the perspective of activity, based on the premise that a collective study and research group that emphasizes actions beyond its structural dimensions offers training that, with new qualities, transforms the individuals involved. Thus, a research was developed based on the premises of Historical-Cultural Theory, with the objective of understanding the principles that guide teacher training in a collective. Data were produced through the analysis of actions carried out in a study and research group with 18 members, comprising undergraduate students, teachers pursuing postgraduate studies, and/or teachers from Basic Education or Higher Education participating in its projects. The analytical process, grounded in the dialectic between the guiding and executing dimensions, sought to identify guiding principles of teacher training in the group through the various actions it develops. The results indicate that these actions allow the principles to be actualized, facilitating the formation of individuals from the perspective of a collectivist personality, based on the affective-cognitive unity constituted in the process

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of participating in the group/collective, which can contribute to the personality development of the individuals involved.

Keywords: Teacher training, pedagogical activity, collective, personality.

FORMAÇÃO DE PROFESSORES EM UM COLETIVO: ALGUNS PRINCÍPIOS ORIENTADORES

RESUMO: Este estudo se insere no campo de investigação que trata da formação de professores, a fim de compreender como esses profissionais se formam em um contexto coletivo, como o de um grupo de estudos e pesquisas. Neste artigo apresenta-se uma interpretação de ações realizadas em um grupo de estudos e pesquisas, que, a partir de alguns princípios, podem orientar a formação docente dos professores que participam dele. Tenciona-se essa formação na perspectiva da atividade, com base na premissa de que um coletivo de grupo de estudos e pesquisas que prima por ações que ultrapassam suas dimensões estruturantes oferece uma formação que, com qualidades novas, transforma os sujeitos que participam dele. Assim, desenvolveu-se uma pesquisa a partir dos pressupostos da Teoria Histórico-Cultural, com o objetivo de compreender princípios que orientam a formação de professores em um coletivo. Os dados foram produzidos a partir da análise de ações realizadas em um grupo de estudos e pesquisas, com 18 integrantes, vinculados ao grupo como acadêmicas da graduação, professoras cursando a pós-graduação e/ou professoras da Educação Básica ou do Ensino Superior que participam de seus projetos. O processo analítico, a partir da dialética entre a dimensão orientadora e executora, procurou identificar princípios orientadores da formação docente no grupo a partir das diferentes ações que ele desenvolve. Os resultados apontam que essas ações permitem que os princípios se efetivem para que ocorra a formação dos sujeitos na perspectiva de uma personalidade coletivista, a partir da unidade afetivo-cognitiva constituída no processo de participação no grupo/coletivo, o que pode contribuir com o desenvolvimento da personalidade dos sujeitos que participam dele.

Palavras-chave: Formação de professores, atividade pedagógica, coletivo, personalidade.

FORMACIÓN DE PROFESORES EN UN COLECTIVO: ALGUNOS PRINCIPIOS ORIENTADORES

RESUMEN: Este estudio se inserta en el campo de investigación que trata de la formación de profesores, con el fin de comprender cómo se forman estos profesionales en un contexto colectivo, como en un grupo de estudios e investigaciones. En este artículo, se presenta una interpretación de acciones realizadas en un grupo de estudios e investigaciones, que, a partir de algunos principios, pueden orientar la formación docente de los profesores participantes. Esta formación se plantea en la perspectiva de la actividad, partiendo de la premisa de que un colectivo de grupo de estudios e investigaciones que busca por acciones que vayan más allá de sus dimensiones estructurantes ofrece una formación que, con nuevas cualidades, transforma a los sujetos participantes. Así, se desarrolló una investigación basada en los supuestos de la Teoría Histórico-Cultural, con el objetivo de comprender principios que orientan la formación de profesores en un colectivo. Los datos fueron producidos a partir del análisis de acciones realizadas en un grupo de estudios e investigaciones, con 18 integrantes, vinculados al grupo como académicas de grado, profesoras que son estudiantes de posgrado y/o profesoras de Educación Básica o Enseñanza Superior que participan de sus proyectos. El proceso analítico, a partir de la dialética entre la dimensión orientadora y ejecutora, buscó identificar los principios orientadores de la formación docente en el grupo a partir de las diferentes acciones que él desarrolla. Los resultados indican que esas acciones permiten que los principios sean implementados para que ocurra la formación de sujetos desde la perspectiva de una personalidad colectivista, a partir de la unidad afectivo-cognitiva constituída en el

proceso de participación en el grupo/colectivo, que puede contribuir al desarrollo de la personalidad de los sujetos que participan en él.

Palabras clave: Formación de profesores, actividad pedagógica, colectivo, personalidad.

INTRODUCTION

This article is the result of doctoral research aimed at understanding the principles that guide teacher training in a collective. It is undoubtedly true that the collective plays a fundamental role in the formation of individuals, whose ways of being, reflect what is socially assimilated. But what is the role of the social in human formation? How does the social aspect influence the formation of human personality? In the case of teachers, what role does a group/collective play in their formation?

We approach these questions about the cultural-historical concept based on the studies of Lev Semionovich Vygotsky (1896-1934) and other researchers of the Vygotsky school, such as Alexis Nikolaevich Leontiev (1903-1979), Arthur Vladimirovich Petrovski (1924-2006), and Antón Semionovich Makarenko (1888-1939). Rather than simply summarizing their studies on the collective, human relations, the role of activity in individual development, and the affective-cognitive links between subjects and the world, our research presents the importance of a study and research group with collective characteristics in the training of teachers and future teachers who participate in them, in terms of the principles that guide this training.

These principles were identified by following the actions of a study and research group in which the author of this paper, in her role as researcher, followed its actions over a period of two years. The material gathered from this observation, obtained through the recording of the group's meetings, the participants² written reports and their memories of the meetings, helped to identify four principles that guide teacher training in the context of a group/collective³.

Thus, this study focuses on the body of research that argues that group teacher training, based on the premise of a collective, will guide teaching action, since this training is organized uniquely that, in turn, gives new meaning to pedagogical activity, thus developing the teacher's personality. The review of academic productions has made it possible to synthesize research related to our focus of study, carried out in the past 10 years. Studies such as Fernandes (2015) and Cruz (2016) argue that when a group identity is established based on training that supports teaching practice, the group can become a space of resistance to teacher illness. This support needs to respond to the needs of the teachers in training so that their work can be developed with greater quality, as pointed out in the studies of Hodge (2017) and Brito (2017). From this perspective, we can say that there are relationships within the group

² The use of the feminine article (in Portuguese) is justified by the fact that the group being investigated is made up of women only. However, we will maintain the use of the word "teachers" in the title, objective and research questions, as we are referring to a group of professionals that includes both male and female teachers.

³ The term group/collective will be used to designate a group that has the characteristics of a collective (PETROVSKI, 1986), but which may not be constituted as such in its entirety, because according to the author, the collective is a higher type of group in which relations involve real and common objectives of the whole society to which this collective belongs.

that contribute to the meaning of the teacher's work, which leads the group to become part of the teacher's life plan, as Borowsky (2017) has argued. Thus, this collective is formed from the history of each of the participants, who come together for a common goal, as Rodrigues (2020) has emphasized.

When we analyzed these productions, it became clear that researchers have emphasized the need to broaden the focus of teacher training beyond learning theoretical and methodological knowledge of pedagogical practice, highlighting the teacher as a personality. Thus, their findings allowed us to recognize three important prepositions for organizing training from the perspective of the collective: I) the reasons why teachers join a group are related to affective-cognitive bonds; II) the contribution of a group/collective to the training of teachers and future teachers lies in the fact that this group motivates them to develop their pedagogical activity; III) in a group/collective, through the actions shared between the subjects and their object of knowledge, it is possible to form a collectivist personality, in the sense of freeing teachers and future teachers from accepting a practice that is often imposed. Based on these prepositions, we believe that training from the perspective of the collective transforms teaching practice. However, this transformation will only be possible if the training is based on principles that can guide the pedagogical practice of teachers, learned in the process of group training.

In this article, to present guidelines for teacher training from the perspective of the collective, we will first discuss the concept of the collective in teacher training in the context of a study and research group understood as a training collective. In the belief that the subject is formed and transformed in the collective, we will discuss the formation of teachers' personalities. Then we will describe the methodological paths of the research, based on the dimensions that make it up: the guiding dimension and the executing dimension. Then we will present the results of our analysis, in which the different actions experienced in the group/collective allow us to affirm that there are important elements that lead this group to become a reference collective in the training of the subjects that participate in it, whose elements are the guiding principles of teacher training and the development of each one's personality. At the end, we'll give our thoughts about the study.

THE CONCEPT OF THE COLLECTIVE IN THE FORMATION AND DEVELOPMENT OF TEACHERS' PERSONALITIES

The concept of the collective, from the perspective presented here, is centered on the ideas of Petrovski (1984), one of the authors of historical-cultural theory. His ideas emphasize that the collective is a social phenomenon that is transformed by the joint activities of its members, activities that are socially significant and meet both the demands of society and individual interests. For Petrovski,

The factor that transforms the group into a collective is the joint activity of its members, a socially significant activity that meets both the requirements of society and the interests of the personality. It is precisely the realization of a socially valuable joint activity that allows the establishment of collectivist relations and the overcoming of contradictions between the individual and the group (PETROVSKY, 1984, p. 8, *our translation*).

This is the understanding that when a group organizes common activities, it allows the relationships between the subjects - in this case, the teachers - to be mediated by the content and purpose of the activity, thus responding to both the social and individual needs of the subjects. In referring to the

concept of activity, we use Leontiev's (1978) ideas as an understanding. According to the author, activity is a complex and dynamic system that responds to human needs. Thus, activity is a practical link that connects the subject to the world around him, functioning as a transit process between the opposite poles: subject and object. It is through activity that human beings establish active contact with the outside world, guided by a motive. This motive is derived from human needs and gives meaning to the activity.

In this way, participation in a study and research group responds to different personal needs, giving the group a new quality and coming to be understood as a collective that transcends the simple gathering of people, since their interests, motives, and needs are common to the group and to the society to which it belongs. The collective therefore represents a higher form of group in which its members participate consciously, with motives that are harmonizing with the meaning of the group, and in which their participation takes on a personal meaning. In teacher education, this means that their collective actions are part of a training activity that contributes to teaching and personal development.

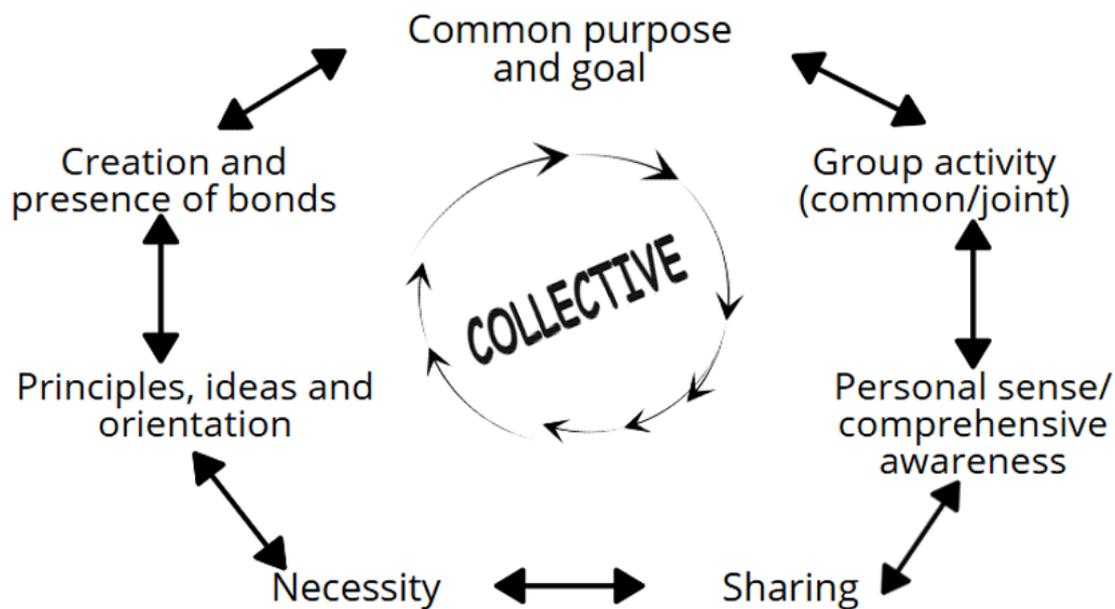
According to Petrovski (1986), the transformation of a group into a collectivity, in which the joint actions of its participants become a socially significant and valuable activity, which responds to social and personal needs and allows for joint actions that overcome the contradiction between the personal and the social, contributes to the formation of subjects' personalities. Collectivity educates the personality and promotes a high degree of social awareness and responsibility. In teacher training, this guides pedagogical activity, overcoming neoliberal practices, that is, in which teachers fight for education as a social patrimony, the right of all human beings, from the perspective of social transformation, favoring a humanizing education that combats alienation and capitalist forms of behavior.

Petrovski (1986) presents different types and categories for the formation of groups and collectives. According to psychology, he explains that there are two types of groups: the conventional group and the contact group. The conventional group is one in which the participants come together according to certain characteristics, for example, age, gender, nationality. In this type of group, there are no direct or indirect objective relationships, and the members may never meet. The contact group, on the other hand, is made up of people who exist in time and space and are brought together by real relationships, for example, a group of students, teachers, a military unit. In a contact group, there is always a leader. The bonds and relationships that form in this group are real and are found in the subjective nature of each participant.

Although these relationships exist in the different groups in which the subject is inserted from birth, there is a type of group that Petrovski (1986) describes as a higher group, which he calls a collective. However, not every internally and externally organized group is a collective. Only a group organized with a collective perspective, whose common activities respond to broad, social motives, can be considered a true collective. According to Petrovski (1986), a collective is characterized by shared relationships, successes and failures, emotional warmth, and openness to new members willing to contribute to the common goals. These characteristics are fundamental to analyzing and identifying when a group effectively becomes a collective, with interpersonal relationships mediated by meaningful content that reflects social needs.

Based on these ideas, it is possible to systematize the essential relationships in a collective, as shown in the figure below.

Figure 1 - Structure of relationships in a collective



Source: Prepared by the authors

In the context of a group organized from the perspective of the collective, the relationships between subjects begin with the individual needs of the members. These needs may be material or intellectual, and the group is considered a means of satisfying them. When individual needs coincide with a common motive and goal shared by the group, this guides the principles, ideals, and organization of the group and its ideological construction as part of a larger society. Each member of the group attaches personal meaning to these principles, and through the creation of affective bonds with each other and with the group activity, the activity becomes meaningful to everyone. By sharing actions that allow the development of new personal qualities, the group becomes a reference for the behavior of each member as a personality.

The specific characteristics of these relationships are important for understanding when a group becomes a collective. In addition, there are specific characteristics that make it possible to identify when a group is, or is moving toward, a collective organization and relationship: collectivist self-determination, cohesion, and emotional familiarization. The first characteristic - collectivist self-determination - can be understood as that which expresses the behavior to be followed by the members of the collective in the face of any influence or pressure that will determine the reaction of each subject's personality to the unexpected events suffered by the group. Petrovski (1986, p. 133) explains that

collectivist self-determination is a characteristic of interpersonal relations in the collective, and is characterized by the selective attitude of the members of the collective towards any influence, including influences from their collective, which are evaluated, adopted or rejected depending on whether they conform to the tasks, objectives, and values that make up the socially valuable content of their activity (*our translation*).

Collectivist self-determination is the opposite of conformism because personal motivations coincide with the goals of the collective. Even if members don't agree with the tasks of the activity, solidarity prevails over individuality in favor of the group's ideology. This means that the pressure of the collective does not threaten harmony because in the collective the personality is free to act in accordance with the group's orientation and has it as an ideal of behavior. In this way, the common perspective is maintained in the various individual actions. In addition, the unexpected situations that the collective goes through are easily handled by its members, and this determines its cohesion, one of the most important characteristics of the collective because it creates and maintains work in harmony and allows each personality to develop, even in less favorable conditions. However, this does not mean that, for example, values, opinions, and knowledge are the same in all subjects of this collective.

The cohesiveness of a collective is determined by the closeness of its members' moral and ethical values, their shared emotions, and the way in which activities are carried out together. This means that a cohesive collective has the group as a guide and guideline for its behavior, which is directly related to the emotional familiarity of each member with the collective. An important characteristic of this relationship is the perception of the collective as true and good, and its affective-cognitive unity is a determining factor in its personality development.

What has been presented so far is fundamental to consider a study and research group as a context of collective formation, in which the affective-cognitive unity will play an essential role in the development of each individual's personality. This implies that the organization of the activities proposed by the group should be aimed at creating a common, cohesive and shared space that represents a cell of the whole of society. Our argument is that if a study and research group is organized with the theoretical perspective presented here, its common activity can serve as a guide for teaching action and contribute to the development of the personality of the teacher and future teacher who participate in it.

Based on the studies of authors such as Leontiev (1978), Rubinstein (1977), Petrovski (1986) and Martins (2013), we understand that human development occurs through the history that individuals build, considering their biological and social conditions. Personality formation is the result of the subject's activities over time, expressing needs, motivations, skills, goals, emotions, and feelings.

Martins (2004) points out that personality is developed in objective circumstances, the result of subjective activity conditioned by objective conditions. This process is social and depends not only on the individual will, but also on the network of relationships established between individuals. Thus, the formation of the human being is synthesized in a collectively produced history and, as it is assimilated by the members of a society, it becomes part of a broader formation: humanity. Personality is a complex form of individuality formed by the relationship between objective and subjective conditions, differentiating each subject socially.

Leontiev (2021) explains that personality is achieved through socialization and cultural formation. Thus, the analysis of human activity and psychic processes shows that the personality of the subject manifests its actions as a historical being that thinks, acts and feels. Thus, subjective activity is related to

practical activity, with thought being a subjective image of the objective world. In teacher training, participation in a collective allows the construction of a subjective image of reality that reflects theoretically on pedagogical activity. This contributes to the development of a new and humanizing personality, in line with counter-hegemonic educational practices and in opposition to the capitalist and authoritarian educational system.

In this sense, teacher education is considered a process of personality development, linked to work (understood here as pedagogical activity) and the ability to promote intentional change. Education must combat alienation and promote the humanization of subjects through pedagogical activity. In this context, a study and research group as a collective can liberate subjects from conformist practices and develop a collectivist and conscious personality. Our research is focused on the formation and development of a humanizing personality because we believe and defend that the collective, from Petrovski's perspective, has the potential to transform the personality of teachers. In other words, we believe that teachers should fight for education as a social heritage, as a right of all human beings, with the aim of promoting social transformation and taking a stand against a capitalist and authoritarian educational system, which will be systematized through the training given in and by the collective.

The analysis of training processes in a study and research group should consider collective actions that promote the training of participants, with an ethical and ideological commitment to the interaction between work and theory. Teacher training, in this case, takes place in the relationship with their colleagues, in the common activities of the group and in the actions that allow participation, thus developing a teacher personality from a collectivist perspective. According to Kopnin (1978), we agree that to validate any theoretical construction, it is important to present the process by which thought led to its construction. In the following section, we will present the methodological path of the research that allowed us to identify principles for teacher training in the collective of a study and research group.

THE HISTORICAL AND DIALECTICAL METHOD AS A METHODOLOGICAL APPROACH

Considering that teacher training in the collective is based on certain principles, as we have done, poses some challenges for research. According to Kopnin (1978), the veracity of any theoretical construction must be proven by demonstrating the path taken to formulate the theory, by analyzing the empirical material and the laws that guided its development. He points out that demonstrating a theory means presenting not only its result but also its development, showing how the thesis was constructed step by step. Therefore, rather than presenting the guiding principles we have identified, it is necessary to demonstrate the process experienced by the teachers and future teachers participating in this collective, in other words, to consider the actions of the group that make this possible. Perhaps for this reason, the research took shape when we understood the existence of principles that allow the collective to promote the development of teachers to a new quality, considering an affective-cognitive relationship and, above all, understanding that the actions experienced with the group must become a training activity for its participants.

The research we conducted took place in the context of a study and research group associated with a public university in the south of the country. During the period in which our research was

conducted, the Study and Research Group (GEPI⁴) was composed of professors of higher education, undergraduates of mathematics, pedagogy, and special education, master's and doctoral students of the postgraduate program in education and the postgraduate program in mathematics education, and teachers of basic education. The members of the group, with and without academic ties to the university, agreed to participate in the study and authorized us to present their contributions as research data. Thus, our research data were collected from the total contribution of 18 participants, 13 of whom were linked to the group through an academic bias as undergraduate or postgraduate students, and the other five participants were no longer linked to the group for academic reasons, but continued to participate in some of its activities as collaborators.

Among the participants in this study, the length of time they have been part of the group varies from participation since its creation in 2009, with a maximum of 14 years and a minimum of 3 years. They were invited to collaborate in the study because we believe that their participation since graduation shows that the group/collective promotes a relationship that goes beyond the fact that they are just studying something that interests them, representing a relationship that is not only cognitive but also affective and allows the group to consolidate itself as a collective that guides the teaching pedagogical activity. The research thus unfolded by following the actions of the group over a period of two years (2020 and 2021).

Due to the pandemic situation, the group had to reorganize its activities and adapt to a new way of meeting via Google Meet. For this reason, the project and general meetings of the group, which brought together all its participants (with or without an academic bias), were suspended, and only the weekly meetings with the group's participants involved in research, which we call formative meetings, were maintained. These meetings took place weekly and lasted about three hours. The data were collected through the formative meetings with the participants, the written reports that were produced during the research period, and the recollections of the meetings, in which each participant highlighted, through the recording of their recollections, what marked them as a feeling and as a learning experience. In addition, with those participants who had already participated in GEPI during their undergraduate or postgraduate studies and who no longer participated in the training meetings because they were no longer involved in academic research, we conducted written reports to understand the impact of this participation on their academic, professional and personal development, given that the group's general meetings had to be suspended due to the pandemic.

In this way, we followed the weekly training meetings of the participants, who are both undergraduate and postgraduate students, as well as collecting reports from the other members of the group who have no academic ties to the university. In particular, some undergraduates completed their initial training during the study and entered postgraduate studies, maintaining their involvement in the group with a continued academic focus. We focused especially on these meetings, where studies, debates, exchange of experiences, reflections on Brazilian education during the pandemic, presentations of ongoing research and personal reports took place. These meetings were planned by the supervisor of this research together with the participants, sometimes including proposals for reflection on specific texts that reveal the perceptions and subjectivities of the participants in relation to the topics studied by the group.

⁴ The specific name of the group has been withheld so as not to violate the ethical principles of the research.

Although we followed the actions of the group for two years, we were unable to present the totality of the reality we had captured, and we tried to solve this problem with the ideas of Bento Jesus de Caraça. For him, "in the impossibility of embracing, in a single stroke, the totality of the universe, the observer cuts out, highlights, from this totality, a series of beings and facts [...]" (CARAÇA, 1951, p. 112) that preserve the essence of its totality. This is what the author calls an isolate. Thus, "an isolate is therefore a section of reality, arbitrarily cut out of it. [...] an isolate of study to include in it all the dominant factors, that is, all those whose interdependent action has a significant influence on the phenomenon to be studied" (p. 112).

In this way, the isolates we chose served as a reference to identify the principles that guide the formation of teachers in a collective in which the actions, the relationships, the history of the group and the affection between the members and with their object of study can guide the personality of the subjects involved in this formation. In other words, the guiding principles of the training only come about because the subject has an affective-cognitive relationship with his group/collective.

In the research we did, we looked at four study isolates: I) the historical movement: group formation actions; II) the construction of a space for formation: group organization process; III) the establishment of emotional familiarization: the sense and meaning of participating in the group; and IV) affective-Based on the isolates, we were led to identify the formative actions carried out by the group, which, through the meaning attributed to each teacher's participation in it, can show their formation through the affective-cognitive unity built in the process of participation. There is no hierarchical relationship between the study isolates, neither in temporal nor in qualitative terms, but rather a dialectical relationship of interdependence. The name of each isolate was chosen to reflect its content, based on the premise that the content of one isolate contains or is contained in another isolate.

In section I, we wanted to present the historical process of the formation of the group, that is, the way it has been constituted throughout its history. To this end, we present the research, projects, and programs that have been developed since its foundation. Intending to show the organizational dynamics of the group, in isolate II we have explained how the group organizes the different actions it carries out and which of them are emphasized by the participants, highlighting those that are or were important for their formation in the group during the period of our research. In addition to the actions, in Isolate III we show the movement of the constitution of bonds that produce meaning and significance for each person when they participate in the group, which establishes their emotional familiarization. It is this constitution that helps to establish the collective emotions of the group, in other words, the feeling of belonging to it, which we see in Isolate IV. Because of these isolates, organized according to the documents of the group, the written reports of its participants, the recording of memories and the manifestations during the formative meetings recorded during the two years of its follow-up, we have collected what we call the interdependence of the isolates, which manifests the principles that guide the training of teachers in a collective.

It should also be pointed out that we collected the isolates that we considered to have essential elements to identify the principles that guide teacher training. The presentation of the isolates was based on episodes of words, gestures, expressions, writings, and actions⁵ (MOURA, 2000) that reveal essential

⁵ We declare that the study participants have authorized the use of their contributions for research purposes, according to the Free and Informed Consent Form signed by all. The identity of the participants has been preserved and they have been referred to in the research using fictitious names.

elements of collective training. A structure made up of interrelated episodes brings together and organizes some of these episodes into scenes containing written and/or spoken sentences, with the aim of highlighting the role of the group in the training of the participating teachers and future teachers, addressing the various actions it provides. On the other hand, other episodes were organized as portraits. The portrait is the result of a movement that had already crystallized at the time of the research. It captures an aesthetic aspect of reality, the analysis of which allows us to go beyond the appearance, to understand it as a synthesis that reveals the actions that made up the phenomenon. It emerged from a movement that was already established at the time of the research. Even without showing directly captured expressions, the portraits do not lose the initial essence proposed by Moura (2000), since organizing them in this way does not exclude their movement. In addition, each episode covers different moments of human formation, and in this way we try to "guarantee the characteristics of fluidity in the perception of the movement of actions in an episode, and of inertia".

The analysis of the study isolates as elements that contribute to teacher training from a collective perspective, which we will explain below, has allowed us to identify some principles that allow the collective to transform the personalities of those involved with a new quality. Due to the limited size of the text, we have chosen to report on the content of each of the study isolates without presenting them in their entirety, but rather to present excerpts from the content of each isolate that represent the movement of our investigation. We would like to emphasize that the excerpts are based on the recordings of the meetings and have been read and approved by the participants, whose identities have been preserved and whose names are fictitious and chosen by each of them. We also used the theory we studied to tell and understand how a study and research group, organized on the premise of the collective, contributes to teacher training, in a time sequence that tells the life stories of teachers and future teachers, intertwined with the history of a group whose premise is the humanization of teacher training. Next, we'll discuss the isolates we studied.

TRAINING FROM A COLLECTIVE PERSPECTIVE: WHAT THE ISOLATED SAY

Human beings are the product of their social relationships, through which we absorb and contribute to our culture. As beings who construct themselves through these interactions with others, with knowledge and culture, we are inherently affective beings. We think, feel, act, and approach people, spaces, and places because we are affected, touched, disturbed, sensitized, motivated, and shaped by these experiences. In short, we are what our activities make us. In this text, we explore the concept of activity about Leontiev's conceptions, who emphasizes that need is the primary condition for the development of activity, since it is the need that drives the person to seek to satisfy it and is the real motive.

When teachers or future teachers seek training in a group/collective, they do so "out of a need to find objective answers to problems that concern them" (MOURA, 2004, p. 258). As they join a group/collective and engage in the activities it offers, new demands are made, bonds are formed, and an emotional and cognitive connection develops. Thus, in this topic, we will present some data from the isolates we studied that allowed us to identify principles for teacher training in the collective.

Isolate I - The historical movement: group actions

We will tell the story of a study and research group associated with a Higher Education Institution (HEI), whose responsibilities include the development of teaching, research and extension activities. Created in 2009, the Study and Research Group (GEPI) is dedicated to the study and research of the process of teaching and learning mathematics in basic education, as well as initial and in-service teacher training. The theoretical and methodological perspective of the group includes the assumptions of the Teaching Guiding Activity (TGA) proposed by Moura (1996). The concept of TGA in the group has proven to be a way of objectifying teaching from the perspective of humanizing subjects, and has also guided its projects and research developed at the undergraduate and postgraduate levels. Thus, the teaching, research and extension activities of the Group, to achieve the objectification of teaching, are guided by two lines of action: a) teaching and learning, and b) teacher training. These two lines, although with different intentions, have a common object: the pedagogical activity of teaching. The activities of the Group include teaching, research and extension. Thus, the organization of the meetings includes: a) meetings with participants linked to teaching and/or research projects; b) meetings with participants who are doing research at the end of their undergraduate, master's and/or doctoral studies; and c) general meetings with participants who have an academic link and with participants who no longer have an academic link with the University.

Regarding GEPI's research activities, we identified 29 studies at the postgraduate level, including 22 masters' thesis, 6 doctoral theses and 1 postdoctoral research project (data up to January 2022). In all of these studies, the focus was on teacher education, from initial to in-service training, and on teaching and learning methods in schools. This consistent theme suggests that it is these two lines of research that define the central object of the investigations carried out by the GEPI, whose developments permeate the research that deals with early childhood education, primary education and higher education. Despite the individual nuances present in each research, they are intertwined by their objective, which goes beyond the investigation itself and encompasses concerns shared by all participants in the group: teaching and learning, and teacher training. What this research reveals is the fruit of the refinement of new syntheses generated from the accumulation of existing scientific production.

When we searched the university's project portal for projects developed by the group within the university, we identified 38 projects covering GEPI's trajectory from its creation in 2009 to 2020 (according to the period of our study), reflecting the historical development of the group's activities. We noticed that the common needs of the group regarding the teaching and learning of mathematics and teacher training, as expressed in the master's, doctoral and postdoctoral research conducted by the group, are also reflected in its projects. Thus, all the teaching, research, and outreach projects had teacher education and teaching and learning in schools as a guiding principle. When we studied the importance of certain programs in their training, based on the reports of the research participants, we tried to check the GEPI archives and the research directory of the Coordination for the Improvement of Higher Education Personnel for the group's involvement in initiatives of this type. From this search, we identified three programs related to the group: two were inter-institutional because they involved subjects from other higher education institutions; another was institutional because it followed the federal government's guidelines for projects of this type.

Although this episode is more theoretical and descriptive, since it deals with research, projects, and programs developed by the group, we understand that the training potential present in these various initiatives lies in the opportunity for both individual and collective learning, since collectivity and sharing are fundamental values of the group. In this context, we can see that the research activities, projects, and

programs developed by the group not only record its trajectory, but also that of its members, since they are built together with them. The historical evolution of the group is anchored in the understanding that individuals transform the reality in which they are inserted and, therefore, the history of the group only exists because it has been built by the subjects who are part of it, unfolding in their research, projects and/or programs.

Isolated II - The creation of a space for training: the process of organizing the group

We believe that the way a group is structured, considering its theoretical and methodological basis, will determine its ability to become a point of reference for teachers when they think about organizing their pedagogical activity. In addition, the process of organizing a group determines the training possibilities for the subjects. The following chart shows elements of the group's organization:

Chart 01 - Elements of group organization

Meeting of the Math Club Project	This meeting brings together undergraduate and postgraduate students who are collaborating with the project and teachers from the partner schools. Together, they collaboratively carry out study, planning, development and evaluation activities in mathematics teaching in the schools involved in the project.
Meeting with the Nucleus	At this meeting, GEPI participants meet with research groups from other higher education institutions to study the foundations of Cultural-Historical Theory, with a focus on the teaching and learning of mathematics.
Student group meeting	Undergraduate and postgraduate students meet weekly to discuss their research, review theory, share experiences and study the theoretical assumptions adopted by the group.
GEPI general meeting	Once a month, a meeting is held with all the GEPI participants, under the guidance of the four professors involved with the university. These meetings provide opportunities to share experiences, discuss projects and explore studies related to mathematics teaching and learning practices in the context of basic education.
Group recommendations	The recommendations involve rules/combinations established by the group and drawn up by the advisor. The rules involve responsibilities such as punctuality at the meetings, division of tasks, being responsible for the memory of the meetings, being responsible for mediating the text discussed, the importance of organizing the orientation and study schedule, preparing and organizing the meeting spaces, among others.

Source: prepared by the authors.

In 2020, due to the novel coronavirus pandemic, meeting formats had to adapt to an emergency model: remote and virtual meetings. From March of that year, when face-to-face activities were suspended as a preventive measure against the spread of COVID-19, the general monthly meetings were canceled, resulting in the absence of data related to them. However, the weekly meetings of

participants involved in projects and research continued to take place via the Google Meet virtual learning platform. Regarding participation in the different meetings, we would like to highlight the following remarks from the research participants:

Maria Alice: Math club! This project gave me a start in school knowledge, bringing me closer to the practices, the children, the process of studying, planning, developing and reflecting!

Krupskaia: I consider participation in GEPI to be essential to my teaching activity. It was in the group that I had the opportunity to learn about teaching in Basic Education with the Math Club, about teacher training in projects such as the Observatory of Education, I was able to supervise undergraduate research and mentor undergraduate teaching students. All these experiences are present in my pedagogical work at my institution.

Prof18: The meetings of the nucleus, both the monthly ones and the face-to-face ones, represent for me the strength of collective thinking when it comes to thinking about a humanizing education, especially teacher training, the teaching, and learning of mathematics and emerging issues regarding the various problems that have haunted public education recently. At each meeting, the studies, discussions, presentations, dialogues and sharing enable me to understand and comprehend various issues and problems in the school context, which would be difficult on their own and have caused a split in the profession. I feel strengthened during the meetings to face the daily challenges of teaching.

Louise: Even though many adaptations had to be made, the continuity of the group strengthened our actions. Being able to share moments, worries, and insecurities about the past allowed us to see that our collective, despite the distance, was still present, showing that we were not alone. In this movement, we started to write the *Memorie*, which at such a peculiar moment is introducing us to so much of the other that it ends up bringing us closer to each other and to the group (Clipping of scenes from the research data).

These statements show that participation in projects, such as the Math Club, is a formative unit for future teachers and practicing teachers. This is because it allows them to acquire new knowledge, forming individuals with improved skills, and the collective activities promoted in this space serve as a reference for carrying out their work. We would also point out that the meeting with the Center is perceived as a shared learning environment, offering continuous training activities for teachers in initial training, researchers in development and teachers from Basic Education and/or Higher Education. In addition, it functions as an affective-cognitive environment, where bonds of friendship are established between individuals united by common interests, going beyond the sharing of readings and studies. Meetings at GEPI have also proved important for this development of a new quality and, furthermore, as a space of resistance in the face of challenges, especially during the period of social distancing resulting from the COVID-19 pandemic.

Also in this isolate, we present a set of rules/combinations that guide the group's actions. These rules were established by the members themselves in the course of the actions, such as punctuality, organization of the space used for meetings, division of tasks, and rules indicated by the leader regarding the role in postgraduate studies, such as periodicity of orientation, preparation of a schedule of research stages, commitment to the postgraduate program, participation in events, reading, and studies. Petrovski (1986) and Makarenko (1977) pointed out that the cohesion of a group depends on the rules understood by the members as essential for carrying out collective tasks. We have observed that there are unforeseen events that hinder the smooth progress of tasks; however, individual interests must not prevail over the good of the group.

Learning about these recommendations and understanding their importance for the group allows future teachers to reflect on the way they conduct their classes, since in their work they act as leaders and need to mediate complex situations to maintain harmony among the students. In addition, this approach makes it easier to understand how to join a group and continue with the actions already underway, as the group often exists before a new member joins and will continue to exist afterward, ensuring the continuity of the collective over time.

Isolated III - The establishment of emotional familiarization: sense and meaning in participating in the group

From the perspective of psychological activity, motives represent human needs. We already know that, from Leontiev's standpoint, an activity must match the motive with the object. Therefore, in order to understand the meaning and significance of participating in the group, we needed to understand the motives of the participants for being in this group and not in another one. Through a dynamic conducted by the researcher, the participants were led to reflect on their reasons for participating in GEPI. The following statements stand out:

Tiffany: The first word I put, needs, is the need to be in this learning movement. Then collective, also because of the need to be in a collective, to learn collectively, to share experiences, to share knowledge, and the need to study mathematics.

Bia: I put continuing to learn, research and share knowledge, searching for improvements and differences in the quality of mathematics education.

Ella: I put interaction, collective and learning [...]. It's a collective that we learn from, even when I went to write my thesis, I went to talk about myself, and then I remembered the collective and learning because when I joined the course it was more about mathematics, I didn't think about education, and when I joined the group I began to see the importance of education. I joined this group, and I was able to learn a lot, a lot, and especially to think about math education and relationships, which I didn't know about when I started my math studies. Imagine what kind of person I was going to be, what kind of person I was going to be if I went to school thinking only about math and not so much about education. So the group made a big difference to the Ella that I am today.

Lara: Well, I've written several words here, but the central one is also the collective. I joined GEPI with Bia, so we gathered, as friends. [...] The way this group is organized makes us learn, we exchange experiences and through this exchange of experiences and learning I become stronger as a person.

Lili: I chose the word collective because it's one of the things that keeps me here, this collective that we've built and that we're learning from and changing daily, with all the learning that we've done with each other through interactions and studies. [...] when I started participating [in GEPI], I began to understand that when you work in a group, when you have a collective, things work out, especially when people have common interests (scenes from the research data).

We highlight motives related to the need to learn and interact. Although these motives are personal, we can see that they are also transformed and become collective, as the participants realize that the actions of the group are always based on collectivity. It is these motives that drive the initiatives of

the group and each of its members, forming the basis and direction of its formation. As these needs are satisfied, new ones emerge, influencing the permanence of members in the group, as emphasized by Talizina (2009), where the motives serve as a stimulus and purpose for the activity, generating the emergence of new motivations and needs as the activities are carried out.

It is worth noting that identifying these motives is only a didactic approach that recognizes that human activity is multifaceted in its motivation. Likewise, it does not imply that each participant has only one or another need - these were the ones identified when they were discussed as a group. In addition, other needs may exist, and the perceived needs may change as they are met. It is this relationship between motive and need that creates the personal meaning of participation in the group. We would like to highlight some participants' expressions that show the personal meaning of group participation.

Melissa: At first, it was the approach to cultural-historical theory that underpinned the group's activities. But what kept me in the group was the collective learning that contributed not only to my research but also to my personal and professional development.

Liz: I started attending at the request of my supervisor, but I kept going because I really liked the other members, sharing experiences, studying the texts together, and watching the presentations of the dissertations and theses. I felt welcomed by the group at a very difficult time to start my master's degree remotely, and I'm learning a lot by participating. I'm pleased to be living this new phase as a Master student, despite the difficulties and confused feelings at the beginning because the classes are online, and I don't know my Master colleagues. It didn't take long for me to feel welcomed as I made new friends (my "little group") and started to participate in GEPI, a very nice group that has welcomed and inspired me (06/09/2021).

Louise: Dear Memorie, how nice it is to be with you again to tell you a little about the GEPI space - which has played a significant role in shaping me as a teacher, as a (novice) researcher, and as a human being. Maybe for outsiders it's just a research group, for others it's a collective, for me, it's the place that triggers constant concerns and movements in relation to the teaching and learning of mathematics [...]. As a result of joining GEPI, my understanding of the teacher who teaches mathematics broadened, not only to the mathematics graduate, but also to the pedagogue - a major motivation for me to change course - and later to the special educator - a research project carried out in the Master's in Education. From that moment on, GEPI played a direct role in my education, allowing me to experience the initial training course in a different light - I was lucky to be able to enter this space even before I started the pedagogy course - and undoubtedly, this made all the difference. But it's been a while because today I'm starting my doctorate, and I'm still in this space, giving myself a new meaning and looking for new answers to the questions that arise at each meeting. [...] In this movement, people stay, leave or join, but the common learning permeates all the paths that GEPI takes. I'm so happy to have had the opportunity to be part of this space and to have learned so much - with friends, colleagues, teachers, and researchers. To tell you the truth, Memorie, I can't imagine being far away from this group that constitutes me, after all, once a GEPI, always a GEPI (oops, I think I changed the pun - once a student, always a student - but the meaning is the same) (17/12/2020). (Snippets of scenes from the research data: the first, a speech from a collective meeting; the last two, analyzed from the writing of the memory of the meetings, indicated by the dates at the end of each excerpt).

These expressions of the participants show that there are different types of bonds within the group, related to academic issues, teaching work, theoretical knowledge and the other subjects that participate in the group. We understand that it is the different types of bonds that allow the emotional intimacy of the group to develop, based on an affective-cognitive relationship. We realize that the

formation and existence of bonds becomes the main reason for joining or remaining in a group. At the same time, it is likely that the bonds formed, or the lack of them, have caused other participants who have already been involved to distance themselves from the group. These bonds will guide each participant's actions and decisions about whether to stay or leave the group.

We can also see from these expressions that memories loaded with personal meaning and emotion are transformed into a feeling of emotional familiarity that does not emphasize the specific content of these memories of experiences with the group, but rather expresses how one feels about them. This is consistent with Leontiev's (1978) study of the role of emotions in human activity, where he argues that all activities are guided by a purpose and that emotions emanate from that purpose, not the other way around. While this connection between reality and the subjective world persists, personal meaning links meaning to the individual life and motives of the subject. Louise reinforces this aspect when she says: "To tell you the truth, memorie, I can't imagine being far from this group that constitutes me, after all, once a GEPI, always a GEPI", showing how this attributed meaning leaves a mark on her participation and thus integrates her personality by correlating bonds - emotional familiarity - and personal meaning.

We would like to point out that having common goals does not mean that the relationships between members are identical; on the contrary, what unites these different bonds is the collective interest. It is the combination of these bonds and diverse relationships that strengthens the group's emotional connection, as different personalities meet and identify with each other. These encounters generate a personal meaning that leads to remarkable experiences, making the passage or permanence in the group something significant for the individual, generating a series of emotions and feelings.

Isolated IV - Affective-cognitive bonds: relationships established with the group

In Leontiev's studies (1978, 2021) we see that emotions are not subordinate to an activity, but they play a role in its development, as they mark the subject's experience. The uniqueness of emotions lies in their ability to reflect the relationship between need and motive, as well as the success or possible success in the realization of the subject's activity (LEONTIEV, 2021). That is why emotions are relevant to activity because those triggered by the motive give meaning to what the person has experienced. At the same time, different motives can also generate different emotions, accompanied by new needs.

Thus, our aim in this section is to introduce the reader to the construction of affectivity in the group, highlighting the emergence of feelings such as belonging and the perception of the group as a point of reference for the actions of its members, thus highlighting the importance of affective relations in the formation of a collectivity, a group. We would like to highlight some statements made by the participants, which represent their feelings towards the group, as well as their expression of the feeling of belonging to it:

Prof18: [...] I think that more and more our theory, what we study, is part of our life, and this power we've had to adapt just shows how much we practice what we study. Both as teachers and as human beings. So, in my case, it was very difficult to adapt to staying at home, at first, I really missed the hectic routine of being at school, looking for an elevator, going to the GEPI city, thinking about how to get back and then thinking about how to go again [...]. I made some adjustments, it became my little corner and how nice to have it in my house. I miss all the hustle

and bustle that we do for events, but having people in my house is also something that has become excellent. So I think the good thing about our group is that it can adapt.

Scarlett: Yeah. I can only thank you too, last year (2019) when I joined the group, I was very well received and the same thing happened now at the end of the year. I think one of the main things, I also mentioned it in the researcher's written report, was that she asked for a moment and I couldn't say a moment, but I knew a welcome feeling. I felt very welcome, I felt like I've always been a part of this, for a long time.

Louise: I think it was good, even though it was an atypical year, I think defending [dissertation defense] this year was entirely unique, I think the appreciation of being present with the group, which was a very simple thing for us before, today, right Ella, we felt how important our collective is, how important our support team is, how important it is for everyone to be there [...]. Even though we're far apart, we're still together. I think the memory this year was something that showed a lot about each other, about what we were feeling. I think that in the end we became closer to many people, to this collective [...].

Elisa: Participating in GEPI has contributed and continues to contribute to my teaching because it was in this space that I learned how to organize teaching from the perspective of student development, and that the school is the space where we can make a difference through intentionally organized actions. And my research training also began in the group, where I learned to research teaching and the teaching-learning process, which gave me the opportunity to always want to learn and research.

Dimi: A lot of learning has been included in my practices, but I would highlight the study of the historical synthesis of the concept that I intend to develop in the classroom, facilitating the organization of teaching and broadening the possibilities of approaches to the subject. (Data from training sessions and expressions indicated by written reports).

Every need arises in relation to something specific, and every motive guides action to satisfy that need. In the interaction between need and motive, emotions are perceived as internal signals and lived experiences that represent the content of feelings because, as already mentioned, people not only experience emotions, but through them perceive their meaning in the form of a concept (MARTINS, 2013). Thus, if emotions and feelings represent the satisfaction of needs and can act as motivators for the activities of each participant, as well as influence their ways of acting by giving them meaning and significance, we understand that when the meaning attributed by each participant is related to a shared emotion, it can be considered a pattern of the group, in other words, its essence in its entirety.

When this happens, it awakens in the participants a sense of belonging because the affective ties, bonds and emotional familiarity between its members have solidified the affective-cognitive unity of the group. This unity is fostered at each meeting through the group's activities and interactions, in which significant experiences, both positive and challenging, are shared by each of its members. The expressions of the participants also show that the participation in the group, as a training collective, gives rise to various needs that become reasons to encourage each individual to participate in this environment. In this way, the activities shared with the group strengthen the teaching activity, giving it an important role in shaping the personalities of its members, improving their work and guiding their behavior.

When there is a connection between motive and meaning, the emotion generated marks the subject's experience and can create a sense of belonging. This feeling inspires the person to recognize that the group/collective has something to believe in and defend as an education, transforming this collective into a reference for carrying out their work. This new quality that the group acquires in the life of each member reveals a cohesive identity that, through personal meaning, contributes to the

development of each person's personality, and the group/collective can become a guide for their behavior and work.

THE INTERDEPENDENCE OF ISOLATES AS TRAINING ACTIONS

The realization that in carrying out transformations, people are also transforming themselves reveals the importance of their collective for human activities. They require instruments and modes of action, learned knowledge that is put into action to objectify what has been idealized by the group, as Moura (2013) points out. This means that the collective to which the subject belongs plays a decisive role in enabling its activities to reach a higher level of quality, benefiting not only the subject itself, but also the collective to which it belongs.

Reflecting on the research group we studied allowed us to understand it as a collective that contributes to the training of teachers through different actions offered to its members: theoretical studies; teaching, research and extension actions; planning, development and evaluation of situations that trigger learning; collective meetings; academic productions; participation in events; organization of events; organization and participation in workshops; participation in collegial committees. We aim to direct this training from the perspective of activity, following the principles of a collective that goes beyond the basic structures of a study and research group, based on what Petrovski (1986) presented to us about the concept of the collective. In this context, we have tried to promote a human formation that transforms individuals and gives them new qualities. In other words, our focus was not only to think of the group and its members in isolation, but to conceive of this collective - the group and the subjects - as a space for formation. This collectivity is achieved when we adopt this theoretical and methodological premise as the organizing principle of the group, guiding its actions towards collective formation.

By analyzing the interdependence of the four isolated groups we studied, we were able to demonstrate that the history, organization, meaning and significance, as well as the relationships established in the group, based on the union between affection and cognition developed through participation in the group, allow it to become a training collective and a reference for teachers' pedagogical practice. We emphasize that it is not enough to carry out common actions in the group: they must reinforce the guiding principles of teaching practice. This means understanding that, in a collective, the group's objectives are valuable because they are shared and, through the individual efforts of each member, transcend the group itself and guide the collective training activity. In this way, each subject can attribute meanings and significances that, although personal, are constructed together with the collective, based on the bonds created and the affective-cognitive unity established during their participation in the group.

The interdependence present in the relationship with the history of the group, in the way it organizes its various actions, in the meaning and significance attributed by its participants, as well as in the relationships established between them and the group's objective, is at the heart of its identity as a collective. This interdependence permeates the different programs and projects developed, the research carried out by the participants, the different types of meetings, the bonds created and the emotions and feelings that arise in this process, establishing ways of thinking about teacher training based on fundamental principles. These principles allow the group to become a reference point for those who participate in it, improving their training from the perspective of a collectivist personality. Here we present the four guiding principles of training in a collective that we identified during our research.

First principle: The teacher and future teacher as the subject of their activity

In many teacher training contexts, such as a collective study and research group, the participants end up participating in the group's activities in order to fulfill their supervisor's request. For us, this is understandable. However, in this case, the future teacher plays a secondary role in his or her educational process. We do not underestimate the guidance of the group coordinator, but we want to emphasize the fact that the participant does not act as the protagonist of his career, since he does not participate in actions that are of interest and necessity to him. What we want to emphasize is that in order for the group to be an effective training activity, the training needs of the participants must be considered. In other words, the individual motivations of each person, which are initially understandable, must be transformed into motivations that give meaning to their participation.

We agree with the ideas presented by Martins (2010), who defends the training of professionals, especially teachers-in-training, as a deliberately planned journey to promote a social practice. From this perspective, no study and research group on teacher education, as a living part of society, can distance itself from the needs inherent in the work of teachers. Therefore, if a teacher's work involves the development of pedagogical activity, it is expected that a training group in this approach will offer actions that allow participants to satisfy their need to acquire knowledge that instigates the improvement of pedagogical activity. On this basis, we can consider the research group as a training collective.

But what are the reasons and needs that lead teachers and future teachers to join a group? We have already mentioned that these reasons and needs are personal and individual. However, they need to be aligned with those of the collective so that a collective relationship with common goals can be established. In other words, if a teacher in initial or continuing training participates in a group only because he will receive a grant or because it is a requirement of the postgraduate program, his motive will only be understandable. They may participate in the activities and perform the necessary tasks only to fulfill these requirements. However, if their participation in the group arises from their need to be involved in this space in order to learn and develop with it, or if their initial motives develop to a similar level, there is a possibility that their motives will give personal meaning to their participation, allowing it to become a teacher training activity in which meaning and significance coincide. In the words of Leontiev (2021, p. 209),

[...] necessity as an inner force can only be realized in activity. In other words, necessity initially appears only as a condition, as a premise for activity, but as soon as the subject begins to act, there is an immediate transformation, in such a way that necessity ceases to be what it was virtually, "in itself". The further the activity develops, the more this premise becomes its result.

As the teacher or future teacher participates in the activities of the group as a subject of this process, the nature of the needs is transformed by the emotional experiences that these needs evoke. These experiences can explain why each person sets certain goals and develops new needs in the process of satisfying them. In this way, when the subject gives meaning to his training activity, and not just to his mere participation in the group, he gives personal meaning to the group, which can lead to a training activity that corresponds to the social meaning of being present, in which he places himself as an active agent in this training activity. Thus, the way the group is organized allows teachers and future teachers to

be active in their training process. For example, in our research, the joint construction of the plan of action and corresponding studies is made possible, based on the topics that the group chooses as important to explore and deepen. In addition, when organizational rules and agreements are established collectively, each participant has the opportunity to recognize his or her importance to the group in complying with these rules and participating in the tasks assigned to him or her. These elements allow participants to be subjects of their training process.

Second principle: The group/collective as a space for taking ownership of the organization of teaching

In carrying out training activities, such as a study and research group dedicated to teacher training, it is crucial to understand the social function of this group in terms of learning the methods by which teachers conduct their teaching. We know that teachers do not have all the knowledge they need to do their job when they decide to become teachers. They need to acquire this knowledge in order to assume their new position as the person responsible for school education.

Initial training courses are characterized as the starting point for learning to teach, through the presentation of theoretical and methodological foundations that guide the organization of teaching in schools, expressed through the subjects that make up the curricula of each degree. However, a study and research group, as a training collective whose object is teaching and learning, can offer a teaching training of a different quality. This is because the teacher, as the subject of his or her training, finds in the group a space where his or her individual needs are aligned with the collective needs of the group. In this way, they experience pedagogical practice through the teaching, research and consultancy projects that the group carries out in partnership between the university and the school and the other teachers who participate in the group.

Within this approach, the actions, and opportunities offered by the group allow the teacher to engage and participate in teaching, research and extension projects, among others, allowing a reinterpretation of their work through the acquisition of theoretical and methodological knowledge for the organization of teaching. From this understanding, we conclude that the group, as an appropriate space for learning general ways of developing teaching⁶, promotes the development of cognitive functions of the participants and provides knowledge that translates into practices to improve their work. In this way,

For a process to be formative, it must guarantee that teachers understand that the actions they organize can promote the development of their students' education. It is therefore a matter of learning to promote pedagogical actions that allow the development of human qualities to their full potential, either by selecting contents to be appropriated or by organizing situations that trigger learning and put students in a position where they have to seek solutions to a problem that materialized in the appropriation of the knowledge necessary for it. In other words, the organization of teaching must lead to the appropriation of knowledge historically elaborated by humanity (LOPES, 2018, p. 119).

These actions related to learning about the organization of teaching include both knowledge about how teaching is structured in the school and an understanding of students' learning processes. As

⁶ We understand that the general ways of developing teaching refer to the theoretical and practical knowledge that enables the teacher to develop the pedagogical activity.

aspects of learning, we highlight knowledge about the organization of teaching, specific knowledge about the content to be taught and its relevance to the subjects' training process. It is through the acquisition of this knowledge by the participants that the group learns the general ways of developing pedagogical activity, the learning of which can overcome the development of neoliberal practices and transform teaching work to a new quality. In our data, the importance of the role of the group in learning the general ways of working as a teacher became clear, since most of the participants have been involved in it since their initial training, and it was this process of being in the group that allowed them to learn the way they organize their work today, which is transformed according to the learning that results from their involvement in the group, now as working teachers.

Third principle: Theoretical and methodological orientation as the objectification of teaching work

We consider it essential that the subjects involved in the pedagogical activity, i.e., teachers and students, acquire theoretical knowledge in order to develop their potential. The objectification of the teacher's work occurs through the teaching activity, as it provides students with a new level of learning through the acquisition of the knowledge generated by it. Therefore, it is essential for teachers to take ownership of the elements that are relevant to the intentional organization of teaching in the school.

We recognize that there are different approaches to organizing teaching with the aim of promoting student learning and development. However, the theoretical and methodological proposal adopted by the group studied has proved to be significant for the realization of the teacher's teaching: the Teaching Guiding Activity (TGA). TGA, as a theoretical and methodological principle, has guided the actions of the group in its teaching, research and extension activities. One of the group's activities is to study this approach as a mediator of the actions of both the participants involved in extension projects and who develop activities in schools. Those who organize their academic research with a focus on teacher training, adopting the TGA as a principle for making teaching effective.

The teaching activity, in this way, is a guiding teaching activity: it has an objective, instruments, and modes of action for its realization; it considers the learning possibilities of the subjects who participate in the activity and the complexity that involves the logical-historical formation of the concepts that are being constitutive of the activity (MOURA; SFORNI; LOPES, 2017, p. 87).

This learning takes place in the training meetings of the group and in the various places where it carries out its activities because TGA guides these activities. Thus, when the participants of the group understand TGA, they realize that it is through TGA that teaching takes place because they have acquired theoretical and methodological knowledge to carry it out. The importance of the teacher in organizing the lesson becomes clear as he/she studies the history of the concept to be taught, plans how this concept will be presented, i.e., the situation that will trigger learning, and the methods by which he/she will build a collective synthesis of the problem presented with the students. This means that teachers acquire a theoretical perspective that guides their actions as professionals responsible for school education, and they also learn the means by which they can develop their work with a new quality, knowing how to objectify their teaching through this theoretical and methodological orientation.

This process of theoretical and practical learning, imbued by TGA, takes place when the teacher, in the course of teaching, uses the knowledge acquired through the group of this proposal. In the selection of content, in the definition of working methods and in the planning of actions to be developed with the students as active subjects in the learning process, they find in TGA a sense and a purpose to carry out their work. The basic elements of this work were developed together with the group in which the learning process took place. The importance of working with TGA was emphasized by the research participants, which shows that theoretical and methodological knowledge is a formative principle that enables teachers and future teachers to develop in this process and in the objectification of their work.

Fourth principle: Affective-cognitive links as an apprehension of pedagogical activity

Vygotsky's studies (1999, 2001, 2018) have led us to recognize that the subject acquires knowledge through interaction with other people, which leads us to argue that sharing facilitates the subject's learning. This means that teachers and prospective teachers, by working together on their tasks, build new understandings of teaching, learning, and teacher education - the research topic of the group we are investigating - allowing them to take ownership of their meaning through collective and individual motivations and needs. In this way, "sharing actions, senses, and meanings presupposes interaction between different subjects with different knowledge, which can be decisive in changing the quality of the process in which the subjects are involved" (LOPES, 2018, p. 127).

For this reason, it is essential that the group provide moments of interaction, understanding that this goes beyond simply doing actions together, as it involves moments of sharing with meaning and significance. Through sharing, participants have the opportunity to engage in specific collaborative situations that allow them to reach a new level of cognitive skills through theoretical learning, and a new quality of affective relationships that give personal meaning to this process. This creates an affective-cognitive bond with the group and its members. Therefore, these interactions, guided by common goals, promote an understanding of the pedagogical activity, and participation in the group acquires a quality of activity from Leontiev's perspective. In this regard, Lopes (2018, p. 128) states: "Collective actions that allow sharing make it possible for the subject to reflect on his learning based on the contribution of others".

Therefore, in a group that is organized according to the principles of the collective and that constitutes an environment aimed at forming subjects with new qualities, the common activities give new characteristics to these motives that are shared by the group as a whole. When these motives are assimilated by the subject - the teacher or future teacher - in his or her training process, they become part of his or her way of acting and the way he or she will subsequently develop his or her pedagogical activity. They become part of their identity and incorporate the way of being of the subjects who will take this learning into other contexts as something authentic and useful - for example, in carrying out their work at school. This perspective is based assuming that "the real basis of a person's personality is the set of his relations, social by nature, with the world, but which are realized and are realized through activity, or rather through the set of his various activities" (LEONTIEV, 2021, p. 202).

The richness and quality of the relationships established between the subject, the other subjects, and the group are fundamental to the creation of affective-cognitive bonds. By participating in

the group, the subject encounters conditions that satisfy his needs and allow him to re-qualify the motives for his participation. In this way, they find, in a nutshell, their capacity to understand the pedagogical activity affectively and cognitively. It is not possible to determine exactly which circumstances or actions can modify each subject's motives and the personal meaning they attribute to the group and their understanding of its activity, since this process occurs psychologically and is personal to each individual. However, it is these circumstances that have the potential to change the main motives of each subject, resulting in new qualities that characterize their personality.

The interactions between the participants were also highlighted as an important aspect of participating in the group, as affective bonds were created that went beyond the purely academic relationship and the division of tasks. In addition, the opportunity to learn a new way of thinking about education and mathematics education, the objects of the group's study, was highlighted. This indicates that the affective-cognitive bonds established during the process of participating in the group are a fundamental principle for understanding pedagogical activity. The ideas presented so far reflect the principles that guide the group's actions, which go beyond these actions and promote the development of the subjects involved in this training process. We recognize that these principles are realized through the affective-cognitive integration that permeates the different moments and relationships in the group, which can contribute to the training and development of teachers and future teachers.

FINAL CONSIDERATIONS

In this article, we present an interpretation of the actions carried out in a group that can guide the teacher training of the teachers who participate in it, based on guiding principles. The research we have studied on collective teacher training (Fernandes 2015, Cruz 2016, Hodge 2017, Brito 2017 and Borowsky 2017) has pointed out important elements about the importance of the group in the training of the subjects. Their studies have shown the need to address theoretical and methodological issues in teacher training, demonstrating how the collective has had an impact on improving education. We go further in our discussions by pointing out that, in addition to this contribution, the group/collective can become part of the subject's life because, through affective-cognitive relationships with the group, they attribute a sense of personal belonging to the group. Thus, their personality develops from the perspective of a collectivist personality. In addition, we have seen, in a didactic way, that the organization of a group/collective, based on the theoretical framework we have adopted, can be based on some guiding principles that allow this group to be used as a reference for teaching pedagogical activity.

The analytical process, based on the dialectic between the guiding and executing dimensions, aimed to identify the principles that guide the training of teachers in the group through the various actions it carries out. We understand that these common actions, influenced by the affective-cognitive unity established between the participants of the group/collective, play a fundamental role in guiding and conducting the training and development of teachers from the perspective of a collectivist personality. These actions permeate all the spaces in which teachers and future teachers are involved when they participate in the group, from the projects in which they participate in the development of their research and their work as teachers.

From the analysis of the data, it is clear that the participation in the study and research group provides a favorable environment for the training of teachers, allowing the exchange of experiences, the

collective construction of knowledge and the development of the learning necessary for teaching. In this way, the formation of the personality of teachers who are part of a group/collective takes place through the circumstances created in the actions carried out in a shared way, which are configured as the activities of the subjects. The set of actions improves the relations of the subjects with the world. Based on the studies of Leontiev (2021), we understand that it is these actions that form the personality type of each person, attributing meaning and significance to the group participants through the cognitive and affective bonds established, taking into account their motives and needs for participating in this context.

In the studies of Petrosvki (1986) we find that the tendency of every human personality is to locate a source of orientation in its group/collective. In our research, we recognize that the personality we identified in a group with diverse actions is a personality based on a collective that seeks to combat alienation and capitalist impositions in education, understanding it as a process belonging to the subjects, with the goal of achieving universality and freedom. In this way, in the process of training in a collective, as in the group studied, teachers can promote changes in themselves and acquire enough knowledge to transform the environment in which they carry out their teaching practice.

The theories developed by authors such as Leontiev (1978), Rubinstein (1977), Petrovski (1986) and Martins (2013) have already pointed out that subjects develop from their history and the relationships they build with other subjects, which contributes to the development of their personality. This implies the recognition of the relationship between their actions, motives and needs, placing themselves in concrete situations, both for themselves and for others. This movement requires the transformation of consciousness in relation to themselves and the world, which becomes possible when teachers develop new qualities through participation and involvement with their collective. The result of this participation is the humanization of the other and of the teacher's own humanity.

At the end of this discussion, we hope that we have succeeded in introducing the reader to the complexity of the formation of a collective and its relationship with the training and personal development of teachers. In a didactic way, we have presented the principles by which a group based on the collective is formed and how this group, by becoming an integral part of the activity of the teachers who participate in it, can guide the formation and development of each one's personality. We emphasize the importance of the affective-cognitive relationship that is established in the movement of participation in this collective through the various activities proposed by the group.

We hope that this work has stimulated reflection on the relevance of the collective in teacher training and the role of this collective in the development of a personality committed to education and social transformation. Understanding these aspects is fundamental for a more conscious and transformative teaching practice. In this way, it is collective action, mediated by the principles we have presented, that allows us to recognize the importance of the group/collective in the training of teachers and future teachers as a space with the potential to emancipate subjects who believe in and defend education as a process of humanization.

At the end of this text, we cannot fail to point out that carrying out this research has strengthened the reasons that prompted it because today, more than ever, it is necessary to think about the initial and continuing training of teachers from the perspective of the collective. We defend this collective training because we understand that it is in the collective that we will be able to promote and enrich teaching knowledge from the perspective of humanization. A training that is based on real and concrete experiences, that has the teacher as the subject of this process, which emancipates them from

neoliberal practices, which can be objectified by the Teaching Guidance Activity as a theoretical and methodological proposal for the organization of pedagogical activity, providing them with the conditions for their development as a universal and free subject.

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The authors declare that there is no conflict of interest with this article.