Dias de Sousa W.D. | IMITATION-CREATION PROCESSES IN TEACHERS’ EDUCATION
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Abstract
The research was carried out with a teacher educator employed in a Bachelor’s Degree Program of a Brazilian institution. The aim was to assess the processes concerning the development of teachers throughout teachers’ education, following the principles of Cultural-historical theory. The theoretical-methodological procedure applied was the didactic-formative intervention, understood as a collective investigation-education process that intervenes with teaching. Such intervention happens with the development of interdependent and simultaneous actions of training, planning and implementation of teaching and studying activities. The intervention comprised questionnaires, interviews, classroom observation, document analyses and training meetings. The analyses demonstrated that the imitation-creation process is essential to teachers’ development. Theoretical principles are only accomplished with creations that help to materialize the teaching practice. Therefore, the training must allow the construction of theoretical concepts that are experienced in the teaching practice through imitation-creation. This process is understood as a movement that constitutes teachers’ education, being established in the relationship between principles and theory’s creative experience, i.e. the creation of teaching possibilities that are developed in the theory-practice unit.

Key words: Brazil; teacher education; professional development; cultural-historical theory.
Introduction
The article presents data from a research conducted in a Brazilian higher education school, with the aim of assessing processes of teaching development throughout teacher education, mediated by teaching actions that were organized and developed from the perspective of Cultural-historical theory. Based on the principle that human beings develop in the processes of appropriation and sociohistorical objectifications, this theoretical approach claims that this is an active and dialectical process achieved in the objective-subjective unit, as well as in the collective-individual-collective unit, from which human beings are produced simultaneously with the appropriation of culture, transforming themselves and the culture. Therefore, human beings are both a product and a producer of culture.

According to this perspective, the study (carried out with a Geography teacher, PhD on teaching her area of expertise, active in classes concerning “pedagogical” training) originated from the following problem: in what way can teacher education cooperate with the process of teaching development?

The methodological framework
This research was created and implemented within GEPEDI – «Grupo de Estudos e Pesquisa em Didática Desenvolvimental e Profissionalização Docente (Study Group in Developmental Education and Teacher Professional Development)» [6; 7] in order to conduct qualitative researches aiming to intervene in school contexts, according to principles of developmental education. This methodology intends to carry out interventions rooted in developmental education, on teacher education and the development of teaching and study activities within classrooms. The purpose is to take hold of teaching actions that develop students’ theoretical thinking in classrooms.

The investigative process was organized according to a didactic-formative intervention into three fundamental stages: 1) diagnosis of the teaching reality observed; 2) didactic intervention integrating actions of training/instrumentalization and planning/development of teaching activities; and 3) comprehension of the imitation-creation process as constitutive of teacher education and teacher professional development.

Several procedures were conducted in a combined and interdependent way throughout the investigation. In the diagnosis stage the data derived from interviews, identification questionnaires, classroom observation and document analysis. The diagnosis lasted for a semester. The stage of didactic-formation intervention happened with meetings for training/instrumentalization, planning and evaluation. Official documents from the institution and the teaching system in question were also analyzed, interviews were carried out, questionnaires were applied and classroom observations were conducted. The intervention lasted a year and a half. The data analysis stage was performed with an in-depth study of the data, in order to analyze and synthesize the research’s regularities and contributions to teacher education.

Within the context of this particular research, the didactic-formative intervention methodology was developed as a process of collective

имозависимых и одновременных действий по обучению, планированию и реализации преподавательской и учебной деятельности.
Были использованы опросники, интервью, беседы, анализ документов, наблюдения в классе. Анализ результатов показал, что применение имитационно-созидательных методов необходимо для развития учителей. Реализация теоретических принципов достигается благодаря творческой деятельности, которая помогает материализовать учебную практику. Таким образом, предоставляется необходимым включение в образовательный процесс построения теоретических концепций, проверенных в преподавательской практике. Этот процесс понимается как составляющая часть педагогического образования, отражающаяся во взаимоотношениях между принципами и творческим преломлением теории, т.е. создание условий обучения, которые развиваются в единстве теории и практики.

Ключевые слова: Бразилия; педагогическое образование; профессиональное развитие; культурно-историческая концепция.
investigation-training that intervenes in teaching. This was done from a dialectical unit perspective, with the development of simultaneous and interdependent actions of training/instrumentalization, planning and implementation of activities on teaching and study. The goal was to contribute to the integrated development of teachers and students.

**Imitation-creation in the context of teacher education and teacher professional development**

The data analysis allowed to state that teachers develop in the process of imitation-creation, throughout training. Imitation and creation are concepts derived from Vygotsky’s works in reference to psychic processes that indicate human development. They enable the comprehension of the possibilities of surpassing subjects and objects in different stages of the sociohistorical constitution of man, by means of an aware and voluntary activity. These concepts are evident in all Vygotskian works, in various moments of his intense productive life.

According to Vygotsky [11, p. 13] Our brain denotes an organ that conserves our previous experience and facilitates its reproduction. Nevertheless, should the brain activity be limited only to retaining the previous experience, man would be capable of adapting himself mostly to the custom and stable conditions of the surrounding environment. All new and unpredictable modifications in the environment – yet to be experienced by man in the previous experience – could not, in this case, trigger a necessary adaptation reaction. Besides the conservation of the previous experience, the brain holds a function equally important. In addition to the reproductive activity, it is easy to notice in human behavior another type of activity, more precisely the combinatory or creator [5].

The materiality conditions of teaching usually include the unexpected, since the relationship between teacher and student constitutes a relationship of opposites, of differences. Even though one exists for the other, there are still unique stories, trajectories, needs and feelings. Thus, in order to materialize a class, it is not enough to master a given area of expertise, nor to understand a theoretical concept (or a conceptual network) that provides the necessary instruments for the didactic organization designed for a class. Its organization is complex, and the consolidation of learning and student’s development involves a process of studies, options and theoretical-practical choices [9]. Therefore, in seeking to accomplish their goals, teachers most certainly ought to resort to the creator activity.

It turns out that most of the times teachers do not avail themselves of the creator potential so as to organize the teaching activity with the necessary intentionality and theoretical-practical grounds. In some situations, they mechanically replicate practices, without being sure of the meaning of their choices. In other situations, they are limited to “professing” pedagogical principles that exist in their rhetoric – in order to be considered in the didactic organization –, but that are not coherently reflected in their own practices. In such situations, the theory-practice unit and the content-method unit are not materialized; consequently, they do not generate the real conditions of an imitation-creation situation.

In one of the meetings of instrumentalization/training action – a didactic-formation intervention stage –, the research participant, a teacher under the fictitious name Santana, joined a class in which the following study was proposed: «formation of concepts», based on the Vygotskian theory [11]. The class was organized with regard to the question: «From the definition ‘formation of concepts’, which essential and sufficient elements take part in its definition? Let’s discuss the conceptual network that is formed». In the following meetings, the teacher retook the experience, because it had been meaningful. She expressed her concerns in planning her own classes with the students, according to the concepts of Cultural-historical theory. At the same time, she felt encouraged reflect upon proposals she was able to coordinate, based on previous experiences related to the study of «formation of concepts».

The guidance that Santana experienced for the study of the «formation of concepts» served as an important instruction instrument [11], enabling the imitation of something that was learned in its essential foundations. According to Vygotsky, imitation should not be considered simply as
a mechanical act. Instead, it must be understood as the possibility of carrying in itself individuality features of the one who imitates. This perspective implies in the necessity of creating conditions that ensure the imitation includes the strengthening of creation features, in situations of collaboration and teaching, since its orientation must be directed to tomorrow’s development [2]. Throughout the didactic-formative intervention, the teacher generated her synthesis, either planning or giving classes, aiming to materialize her creative comprehension of the concepts apprehended.

During the investigative process, it became evident that the imitation process does not occur exclusively with children while learning, but also among adults. Santana had this experience with a movement that was both dynamic and favorable for her teaching development. Based on the imitation process as a reference for her knowledge appropriation, the teacher could materialize her creative teaching activity, being intentionality-oriented and established in the scientific rationale of teaching. In this movement, the process of teaching becomes an intellectual activity [4].

According to Vygotsky [12], one can only imitate what is found within the Zone of Proximal Development, i.e. within the space of intellectual potentials that are not completely mature and, therefore, that demand the collaboration from a more capable subject in order to be surpassed. An evidence of this process is the fact that Santana leaned on an experience related to teaching scientific concepts to provide her own teaching proposals.

Learning something new is not restricted to understanding the formal logic of a concept, even when the concept carries the possibility of accomplishing a theoretical thought – which is the case of teacher educators. Given that what is at stake is a process of appropriation-objectification, it is necessary to act with the concept, experiment it – observe its application in different contexts, just as Santana had the opportunity of experiencing, always through collaboration and orientation.

In the formative process undertook in this research, it was possible to grasp that imitation forms a dialectical unit with creation in order to enhance teaching skills. To imitate, after all, is not confined to the act of mechanically repeating certain practice that was experimented or known through others. Beyond this perspective, to imitate requires to create while redesigning another practice, being altogether aware of theoretical and practical principles, as well as of the intents [10]. This happened in the process of didactic-formative intervention – that is, with teaching-learning conditions. Imitation had a creative effect, transforming subjects and objects that were involved since its genesis.

Imitation and creation constitute a unit to teacher education. Furthermore, it displays a contradictory feature, given that creation – or man’s creative activity, the one in which something new is created – takes into account previous references. Man does not create in the void [12] instead, he creates new combinations for his existence based on what it was already created.

Encouraged by the study of conceptual nexus around the «formation of concepts» in the perspective of Cultural-historical theory, Santana was empowered and proposed to plan her classes using the referred theory as its grounds. The teacher solely accepted this challenge because its purpose and object began to coincide; she used to feel that the academic routine had distanced her from investments in her teaching education, and this generated an urge for transformation. Moreover, the theory she studied provided her with skills to establish dialogues with what she considered to be gaps in her education, filling her with meanings. The study effort, the action of planning classes and her achievement did not constitute solitary efforts – they were all made in collaboration and were driven by possibilities, the need of reorganization and permanent evaluation. An intentional process of theoretical and methodological instrumentalization was established from the formation of the imitation-creation unit.

This process was only accomplished because it was supported by an instruction that allowed the teacher to imitate and create simultaneously. Santana materialized the imitation-creation process by redesigning the teaching practice with her own particular comprehension.
and her own creative ability. She was not confined to a previous reference that was merely empirical. Instead, she surpassed such reference and materialized the imitation-creation unit.

**The process features: some considerations**

The research data revealed that, through the imitation-creation unit, the process of teacher education renders teacher development. Santana actively participated in the materialization of the research since the diagnosis stage, going through the actions of instrumentalization, planning, development and evaluation of teaching and study activities. Thanks to her «active» participation, the process manifested the quest for satisfying needs that were related simultaneously to the investigative purposes and to the teacher’s personal and professional goals. From this point of view, Santana headed towards satisfying her needs. Data shows that, rather than standing in the same development level she was at the beginning, she evolved.

In the experience that fused elements of theoretical studies to elements of practical materialization, it was possible to notice that the imitation-creation unit constitutes an essential principle to developing teacher’s skills. The teacher:

- Experienced didactic organization methods of forming concepts and then created her own organization methods;
- Produced a creative interpretation to concepts through schemes, examples and questions to students;
- Dealt with the unexpectedness inherent to all education activities by putting in practice her creative ability, always referring to theoretical assumptions;
- Organized and created her classes being aware that they would be object of imitation-creation to the students and, for this reason, problematized the matter with them, encouraging them to produce their own references;
- Understood that the lecture of a text generates an image that brings students closer to the act of studying, and that this teaching strategy is adequate to creating new understandings about a given concept, in the context of the practical process of teaching activities;
- Confronted spontaneous and scientific knowledge with traditional models of Geography classes, in order to support new creations;
- Provided verbal and written orientations, such as imitation-creation elements, in the process of constructing applicable teaching situations;
- Created new trajectories from the difficulties that arose in her own teaching;
- Used evaluation in order to recreate and redesign her teaching actions.

As a process of appropriation/objectification of knowledge (historically produced in confrontation with teaching demands), the imitation-creation unit was evident throughout this research. It revealed elements that explain mechanisms of production of the human psyche and, therefore, of the production of each particular story [3]. After all, culture and the cultural goods produced through science are appropriated and redesigned with the synthesis of each particular subject — and, in the specific context of this research, of the teacher who participated of the didactic-formative intervention.

The imitation-creation unit has two opposing sides that complement one another in the process of teacher education. On the one hand, imitation provides references, models, images — all in reference to man’s internal fight for self-production. On the other hand, creation establishes the synthesis, the novelty, the plasticity of each individual in a given reality. The genesis is the imitation-creation unit. This process results in the grandeur of human intelligence — limitless in its comprehension and its production of the same reference system. For all this, subjects cannot remain alienated; they must develop their potentialities and permanently humanize themselves. This is the legitimate meaning of existence.

*Информация о конфликте интересов: авторы не имеют конфликта интересов для декларации.*

*Conflicts of Interest: the authors have no conflict of interests to declare.*
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