

# Curriculum policies for vocational education and teaching work\*

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## Abstract

This article investigates the process of implementation of the current National Curricular Guidelines for Technical and Vocational Education of High School Level (Statement NCE/CBE n. 11/2012 and Resolution NCE/CBE n. 06/2012) in a vocational education institution in the state of Goiás. For this, a case study was carried out, which data survey procedures were documental analysis, observation, semi-structured interview, and instruction to the double. The documents analyzed were related to the curricular policies and the levels of the curricular decision in the school institution. The managers and teachers participated as investigation subjects. The implementation of the curricular guidelines has been made from actions of the Dean, such as remodeling of pedagogical projects and curricular matrices of technical courses; building a program of continuing education for teachers and administrative staff; organizing and developing scientific events; conducting a pilot work of curricular reformulation and dialogues between management representatives and teachers of different campuses. However, these actions have had little effect on teachers' practices. Since the development of their work, they are influenced by factors such as personal and socioeconomic dimension of the work, pedagogical work organization, students, disciplinary field, action area, teachers' values, and professional experience, among others.

## Keywords

Curricular policies – Vocational education – Teaching work.

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## Introduction

Brazil, in the last decades, has been going through a broad and deep process of reform in Brazilian educational policy, aiming to establish new directions for education. In this process, two characteristics call attention: the strategic place of the curriculum as an inducer of changes in education at different levels and teaching modalities in school reality (CANDAUI, 2001) and the discontinuity of educational policy projects put into practice (SAVIANI, 2008). Vocational education is a modality of teaching that has suffered the unfolding moment in Brazilian educational policy. Thus, since the 1990s, different political-pedagogical projects have been in dispute for the reform of this type of education.

After the *Law of Guidelines and Bases of National Education* (LGB) has been approved, Law 9394/96, vocational education was conceived as the possibility of integration with the different forms of education, work, science, and technology and as the possibility of integration between vocational and general education. It is, therefore, a perspective that seeks to overcome the well-known duality of training for work versus training for life, which is an important mark of Brazilian education. This proposal was the result of the action of teachers, intellectuals, scientific entities, among others (SAVIANI, 1999).

In the year following the approval of LGB, several actions were approved, such as the enactment of Decree n. 2,208, on April 17, 1997 (BRASIL, 1997), which established the separation of Technical and Vocational Education from high school and the curriculum by competences, among other actions, thus contradicting the proposal of integration of vocational education with high school, indicated in LGB. These changes were related to the influences of international organizations and packaged by economic and market issues (FRIGOTTO; CIAVATTA; RAMOS, 2012; FERRETTI, 1997; KUENZER, 2008).

The *National Curricular Guidelines for Technical and Vocational Education of Medium Level* (NCGTVE) were defined in 1999, according to National Council of Education (NCE/CBE) Statement n. 16/99 and NCE/CBE Resolution n. 4/99, with the conception of vocational education aligned with Decree n. 2.208/97. Thus, the separation between the aforementioned educational modality and secondary education was maintained. Besides the organization of this modality in professional areas, the curriculum remained under the foundation of professional skills (BRASIL, 1999).

During Lula da Silva's government, Decree n. 5,154/04 was approved in 2004 (BRASIL, 2004). It was the result of the mobilization and debate of researchers and teachers who had as background the discussion on polytechnic education and, consequently, the aiming of overcoming the structural duality between general and technical training<sup>3</sup>. Thus, in the referred decree, the possibility of integration between technical vocational education of middle level with secondary education, the organization of courses by professional areas,

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**3-** Structural duality is understood by the "division" of the school into two, one with propaedeutic character and the other with professional character. The institution with a propaedeutic character has the objective of promoting the humanistic formation, of general culture, aimed at leaders and intellectuals. The school with professional character, in turn, aims to promote education exclusively technical-professional, aimed at workers. The structural duality is based on the social division of labor, in which men are directed to intellectual and manual functions according to their social class (KUENZER, 1994). Authors such as Frigotto, Ciavatta, and Ramos (2012), and Kuenzer (1994), for example, understand that, mainly until the 1990s, structural duality is a strong expression of Brazilian educational policies focused on high school.

and the articulation of education, work, science, and technology were instituted. In this way, Decree n. 5,154/04 presented meaningful advances in the proposal of technical and vocational education for the high school level (FRIGOTTO; CIAVATTA; RAMOS, 2012). In 2012, during the Dilma Rousseff's government, the new NCGTVE (NCE/CBE Statement n. 11/12 and NCE/CBE Resolution n. 06/12) were approved, in which articulations with Decree n. 5154/04 were sought.

It can then be observed that, in the field of professional education, there is an intense movement of changes in vocational education policies to the middle level, especially when modifications in government projects occur.

The discontinuity of the curricular policies of vocational education, through transitions and ruptures in different projects for this modality of teaching, interferes in the pedagogical practice of the teachers. It happens because this movement causes insecurity in the teaching work, contributing to the no effectiveness of the curricular policies. (SILVA; MARQUES, 2007). It can also be inferred that, due to the speed with which the changes are being made, there is no time for policy assimilation by teachers.

Given the scenario presented, it becomes crucial to investigate how vocational education institutions are putting curriculum policies for Technical and Vocational Education at the high school level in place. Thus, the purpose of the study was to analyze the process of implementing the NCGTVE in a professional training school. And the specific objectives were: a) to examine the curricular proposal for the high school vocational education courses contained in the NCGTVE and in the pedagogical projects of the Training Institution to analyze the process of recontextualizing these curricular guidelines; b) to investigate how the curricular reformulation in the Training Institution was directed at the different levels of curricular decision making and its impact on the organization and development of teaching work in the general context of the school and the context of the classroom; c) to analyze how teachers work when putting the curriculum into action, seeking to identify the factors that impact this work; and d) to investigate how managers and teachers assess the process of curricular reformulation.

The research was developed from three main categories, which are professional education, curricular policies and teaching work, based on the articulation of two theoretical axes: a) curricular policies of vocational education and b) teaching work.

The research design was based on the concept of Gimeno Sacristán's curricular development (1998, 2000, 2013a, 2013b). The author recommends a procedural conception of curriculum, a perspective that seeks to articulate the curricular project expressed from public policies to the context of teachers' pedagogical practice, with the curriculum materialized at different levels. In this process, teachers are the main agents of the curriculum, since they recontextualize the curricular proposals that they have access to (BERNSTEIN, 1996).

The first level of curricular development is the curricular policies, which establishes an education project arising from educational public policies, being called prescribed or official curriculum (GIMENO SACRISTÁN, 1998). Sometimes, the official curriculum is interpreted and embodied in proposals for disciplinary content, in book format and other

pedagogical materials that are used by teachers (GIMENO SACRISTÁN, 1998, 2000, 2013a, 2013b), called curriculum presented to teachers.

The prescribed curriculum, when arrives at the educational institutions, suffers interference from the teacher and the other subjects who experience it. In this process, Gimeno Sacristán (2000) considers the teacher as the main mediator between the curriculum and the students, an active agent in the process of curriculum development. From the collective perspective of the teacher, the educational project that comes from the official curriculum guidelines is interpreted and then the institutional pedagogical project is elaborated.

The next level of curriculum development refers to the curriculum in action, which is sets up as the practice carried out by teachers in concrete situations of their work (GIMENO SACRISTÁN, 2013a). The result of the curriculum in action is called accomplished curriculum, which are the diverse effects of cognitive, affective, social, moral, in the subjects who participate in curriculum development. Finally, the curriculum is expressed in verifiable school results that are reflected in school performance, called assessed curriculum.

To contribute to the understanding of the relationships that occur in the diverse instances or levels of the curriculum, the concept of recontextualization was used, developed by the English author Basil Bernstein. This notion was formulated in the context of the theory of the pedagogical device (MAINARDES; STREMEL, 2010) aiming to analyze the process of transformation of a discipline or a field of knowledge to constitute school knowledge. The recontextualization constitutes a transfer of texts from one context to another, such as, for example, from the academic context to the context of an educational system linked to the federal, state, or municipal sphere; from the context of an educational network to that of a school.

Aiming to analyze the curriculum in action, the teaching work was taken as a reference, whose goal was to understand the factors that influence this work. The analysis had the point of view of the activity as a theoretical basis, from the contributions of the ergology (SCHWARTZ, 1996, 2002, 2003, 2004, 2006, 2010, 2011; SCHWARTZ; DUC; DURRIVE, 2007). In summary, ergology proposes a multidisciplinary approach with the aim of “[...] getting to know better and, above all, to intervene better in situations of working to transform them” (SCHWARTZ, 2007, p. 36). The work is considered as a place of complex events (SCHWARTZ, 2004), in which human industriousness is developed (SCHWARTZ, 2006).

From the ergonomic approach, the subjects must fulfill a series of tasks established by standards that are prescribed to them in their action at work. However, the subjects do not limit themselves to complying with the prescriptions, since they constantly reinvent, and renormalize these orientations. Thus, in this process, there is always the combination of norms that are antecedents, more or less visible, accumulated, teachable, prescriptible, codable with the renormalizations, more or less resingularizing (SCHWARTZ, 2011).

An important aspect to consider is that the norms are unfinished because the environment is always unpredictable or unfaithful: “[...] the environment is always more or less unfaithful, it never repeats itself exactly from one day to another or from one

situation to another”<sup>4</sup> (SCHWARTZ, 2007, p. 191). Thus, workers develop strategies that are unique to the challenges presented by the environment.

This text is organized as follows: in the first moment, the research procedures are described; and in the second, briefly, the theoretical input used and, finally, the findings of the research.

## The research procedures

This research was a case study conducted on a *campus* of a vocational education institution in the state of Goiás, which is part of the Federal Network of Professional, Scientific and Technological Education. Then, to safeguard the identity of those involved, generic names *Training Campus* and Training Institution were used to refer, respectively, to the *campus* and the institution where the research was developed.

The Training Institution has a multi-campus structure, with 13 poles, in 12 cities in the state of Goiás. It offers professional training courses in high school education and higher education, such as technical courses at the high school level in the modalities integrated to high school and youth and adult education, subsequent and concomitant to high school, technology courses, bachelor's undergraduate, and graduate courses (*lato sensu* and *stricto sensu*). This institution also offers extension courses and short-term professional training.

The *Training Campus* is located in a city that is part of the metropolitan region of Goiânia. Currently, it offers technical courses (Industrial Automation, Buildings, Electrotechnics, Computer Science for Internet and Safety for Work), undergraduate courses (Civil Engineering and Electrical Engineering), and a *lato sensu* graduate course (Specialization in Teaching Humanities).

The fieldwork began in August 2017 and ended in March 2018. The procedures for gathering evidence were documentary analysis, semi-structured interview, the *double instruction* method, and observation. The interlocutors of the research were five managers and seven professors. The managers interviewed were the Pro-Dean of Education, the Director of Teaching Development, and the General Coordinator of High School, who are part of the team of the Pro-Dean of Education, the General Director, and the Teaching Manager of the *Training Campus*. The participating teachers were two from the professional area (Computer Science and Buildings) and the others from the general area (Physical Education, Chemistry, Biology, Mathematics, and Sociology). The documents examined were related to the different levels of curriculum development and prescribed work, namely: the current NCGTVE and other documents arising from curriculum policies, the Institutional Development Project (IDP), the Pedagogical Projects of Technical Courses (PPC), the teachers' course plans and documents relating to the regulation of teaching activities of the Training Institution.

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**4-** Our translation of “[...] o meio é sempre mais ou menos infiel, ele jamais se repete exatamente de um dia para outro ou de uma situação para outra” (SCHWARTZ, 2007, p. 191).

A semi-structured interview with managers and teachers was conducted, seeking to identify how these subjects assess and deal with the process of curriculum reformulation, and also to gather evidence about the teaching work.

The double instruction method was carried out with two teachers by a group composed of three teachers from the Training Institution. The process took place in three moments: a) in the first, the participating subjects were confronted by the mediation of the activity regulated to the double; b) in the second moment, there was the transcription made by the participants; and c) in the third moment, the written comment on the form and content of the transcription was made. The goal was to seek the confrontation in two moments: in the first, of the subjects with themselves through the mediation of the activity of the double; and, in the second, from the materialization of this exchange through the mediation of writing activity. The length of the procedure was approximately 40 minutes in each intervention and it was carried out in a restricted room. It allowed us to advance the real situations of the work and identify the unique ways in which teachers work.

Observations were open and systematic (GUÉRIN *et al.*, 2001). Thus, the first visits were open observations of the institution itself, mainly of the layout and organization of the physical space, of the teachers' means of work in the different spaces of the school, during class breaks in interaction with colleagues, technical-administrative staff and students. The purpose of these observations was to raise evidence that would contribute to the analysis of situations related to the general functioning of the school. The systematic observations were carried out in the teaching work, collective planning activities, and teaching, in the class context of two teachers, one who teaches a subject related to the professional area (Computer Science) and another teacher who teaches a subject of general education (Biology). These teachers will be called Celso and Bertha, respectively. Regarding Celso, two classes were observed: Logic of Programming - 1st year, and Development of Advanced Mobile Applications (DAMA) - 3rd year, both of the Computer Science for Internet Course. Bertha had two classes observed: Biology in the 1st and 2nd year, both of the Electrotechnics course.

The analysis of the evidence was made from two moments: a) organization of the data, with transcription and categorization of the different sources of evidence; and b) confrontation of the different sources of evidence with the literature.

## **Curricular policies for Vocational Education**

Concerning the curricular policies of Technical and Vocational Education at High School Level, the NCGTVE (Statement NCE/CBE n. 11/12 and Resolution NCE/CBE n. 06/12) were analyzed, which are the references for the institutions in their curriculum elaboration.

In general, the NCGTVEs are documents that present a proposal for human and vocational training considered as *dual*. This is because their project presents elements that make it possible to think of proposals for the workers' formation from two different perspectives: the first project, which approaches an expanded conception of human development, makes it possible to think about overcoming the historical duality that exists between technical and the general worker's education;



and the second project, which approaches a plan of unilateral constitution of man and is directed to capitalist interests.

On the first training perspective, the NCGTVEs present the following propositions: a) the articulation between vocational education and general training, established through the offer of integrated courses of vocational education and high school and the integration between specific knowledge for the production of knowledge and social intervention, the research being considered a pedagogical principle; b) the curriculum considered as the result of a process of selection and production of knowledge that happens in a consensual way, a conception that presents influence of the critical theories of the curriculum; c) the proposed organization of the curriculum in technological axes, which should consider the technological matrix, with methods, techniques and other elements of the technologies related to the courses; d) common polytechnic Core, which is related to the scientific, social, organizational, economic, political, cultural, environmental, aesthetic and ethical foundations that underpin the technologies; e) knowledge and skills in the areas of language and codes, human sciences, mathematics and nature sciences, linked to basic education, considered essential for the formation and professional development of citizens; f) work as an educational principle; and g) permanent updating of courses and curricula. Furthermore, this training perspective presents principles such as interdisciplinarity, contextualization, and integration between theories and practices in the teaching and learning process (BRASIL, 2012a, 2012b).

On the second perspective of training, there is the indication of concepts and conceptions that are contradictory to the extended concept of training, such as a) the justification of the guidelines aimed at training focused exclusively on economic aspects and to meet legal changes; b) the possibility of instituting courses that are not integrated, i.e., offer of vocational education courses at the high school level in a concomitant and subsequent articulation; c) the indication of integration between general education and vocational education that can provide the juxtaposition of subjects; d) entrepreneurship as an indication of part of the curriculum of vocational education courses (BRASIL, 2012a, 2012b).

It is important to stress that the contradictions presented refer to the conception of professional education, which may reinforce the historical duality that exists in this type of education in Brazil.

## **The recontextualization of curricular policies in pedagogical projects**

In the process of recontextualization, within the framework of the Training Institution, a secondary context (BERSTEIN, 1996), there is a willingness to reproduce public policies aimed at vocational education. Thus, the IDP indicates that the Training Institution should base its actions on three perspectives: a) rupture with the dichotomy of theory and practice; b) curricular flexibility and mobility; and c) articulation among teaching, research, and extension, which presents approximations with the proposal of the NCGTVE.

Regarding technical vocational education, the IDP presents a full reproduction of the guiding principles established in Resolution NCE/CBE n. 06/12, which indicates the intention to reproduce them in the proposal of its courses. A newness is that 20% of the total workload of the integrated technical courses are reserved for the distance modality. This is a possibility that was also established from the above resolution.

Concerning the curriculum prescribed within the *Training Campus*, the Pedagogical Project of the technical courses (PPC) offered were analyzed (Industrial Automation, Buildings, Electrotechnics, Internet Informatics, and Work Safety). The PPCs of the courses present the philosophical foundations of the emancipatory and transforming educational practice and the broad conception of a human being, who is understood as a social-historical being who acts on nature to satisfy its needs. However, the general and specific objectives of the course take another direction, focusing on the technical character of the formation and not addressing aspects of an extended training, related, for example, to the education for citizenship, different from what happens with the professional profile that considers aspects of technical and general qualification in indicating what the workers should do in their future work.

The integrated technical courses are designed on an annual basis, with the curricular matrix organized by subjects, and the subsequent courses are offered on a biannual basis, with the curricular matrix organized by subjects, on a modular basis. Regarding the curricular organization, it was identified the maintenance of the subjects indicated by the *National Curricular Guidelines of High School* (NCGHS) located in the common Core, with a willingness to reproduce a traditional hierarchy of curricular components, which moves away from a perspective of expanded human formation. The knowledge of general and technical training remains separated by the curricular components of the Common Core and the curricular components of the Vocational Training Core. However, there are spaces considered to integrate general and technical training knowledge into curricular components that are part of the so-called Diversified Core.

## **The process of implementing curriculum policies in the Training Institution**

Concerning the implementation process of the NCGTVE in the Training Institution, it was observed that the management is developed by Pro-Dean of Education (PDE) and the management at the level of the *Training Campus*. PDE has altered the PPCs and the curricular matrices of the technical courses; continuing education actions for teachers and technical-administrative staff; pilot work of curricular reformulation and dialogues between representatives of PDE, and the campuses, called Itinerant Pro-Dean.

In the *Training Campus* context, the actions related to the implementation of the NCGTVEs are the design of the PPCs in accordance with these curricular guidelines; and pedagogical meetings that take place at the beginning of each semester (pedagogical planning) and during the school year. In these meetings, activities are held, such as dialogues between teachers, in the form of lectures and/or debates on the topics presented by the current NCGTVE. The actions taken by the Training Institution and the *Training*



*Campus* to implement the current curriculum policies are moments of continuous training that present diverse formats.

The managers' evaluation of the implementation process of the new NCGTVE was positive, considering that the work performed by the management has been satisfactory. Regarding the impact that the curricular policies presented in the organization of the teaching work, managers presented different positions. The Director of the *Training Campus* understands that the arrival of the current NCGTVE did not represent a newness in the organization of pedagogical work due to the indication of integration of high school with professional education, because of the Decree n. 5.154/04 had already made this indication:

[...] before the NCGTVEs were approved, integrated high school education came through Decree No 5,154, which replaced Decree No 2,208, which at the time separated high school from professional education. This new decree then made it possible to integrate the various forms of linking high school education with vocational education. Then, with Decree No. 5,154, it was possible to establish again the integration of secondary education with vocational education. (DIRECTOR OF TRAINING CAMPUS).

Thus, for the manager, the arrival of the NCGTVE did not represent an impact on the organization of teaching work, since the major change in curriculum had already been indicated in Decree No. 5,154/04, which was the possibility of integration of secondary education with vocational education, underway in the institution. The Pro-Dean of Education considered that the NCGTVE presented ways to operationalize the curricular integration, which enabled the resolution of previous problems related to operational issues:

The guidelines reinforce this, although the decree has advanced much further. But it reinforces, details, shows ways of doing, methodology, stipulates the workload, for example. Maybe it would have been issued together with Decree No. 5,154, guiding course workloads. In this sense, it contributes to the implementation of integrated high school courses, but even after it, there is still a time gap that we are taking to understand this concept, some institutes are ahead, others not yet. There are institutions with four-year high school, totally separate, despite being called high school, and has no integration at all. (PRO-DEAN OF EDUCATION).

The evaluation made by managers of teachers' participation was generally positive, but it was pointed out that some teachers are reluctant to accept changes, such as changes (reduction) in the workload, implementation of distance working and development of integration work with teachers of other subjects. It was also considered that teachers with longer working hours tend to be more resistant to curricular changes.

Managers also consider that the Training Institution has not yet succeeded in effectively integrating technical and basic education in its integrated courses and have raised the following factors: a) initial teacher training, which does not address the issue of vocational education and curricular integration; b) the lack of continuous training and integration between teachers and subjects; c) the lack of knowledge of teachers about

integration, which contributes to the non-curricular integration of integrated courses and thus becoming responsible for the non-curricular integration.

## **The prescribed work**

The teachers who work at the *Training Campus*, when developing their job, find a normative framework that contributes to the formation of the prescriptive aspects of it, that is, the prescribed work. The prescribed work is formed by at least three elements: a) determined work conditions; b) anticipated results; and c) objectives directed to the workers, which indicate what must be done by the worker, that is, the task to be performed (GUÉRIN *et al.*, 2001).

In the *Training Campus*, aspects such as the institutional identity and administrative structure of the Training Institution, school management, physical structure, pedagogical materials, academic calendar, among other aspects, constitute elements of the prescribed work and contribute to forming a framework according to which teachers develop their work activity.

The institutional identity of the Federal Institutes - IF is based on three main characteristics: social function, didactic-curricular organization, and professional exercise of teachers. Thus, the IFs were formed in a decentralized manner, with the objective of promoting the interiorization of their teaching units (PEREIRA, s.d.) and also present a didactic-curricular design based on transversality and verticalization (PACHECO; PEREIRA; DOMINGOS SOBRINHO, 2010).

The administrative structure is formed by a central administration, located in the Dean, which has Pro-Deans responsible for specific areas in the institution. The management at the *Training Campus* is under the responsibility of the General Director, together with managers and coordinators who form a team of managers. This team may consist of teachers and/or administrative technicians. The school management has a democratic character with a friendly relationship between teachers and the Campus management team.

The teachers' professional exercise is developed with teaching, research, and extension activities, as well as management and representation activities, and the *campus* has a good physical structure, with rooms, labs, auditorium, among other spaces. The pedagogical materials available are varied, from sports materials to digital blackboards. The schedule of the Training Institution is organized by quarter.

In general, the teachers who work at the Training Institution have been admitted to public exams and titles, and work under the exclusive dedication regime so that they can develop teaching, research, and extension. Regarding the fact that they are teachers at the Training Institution, the teachers interviewed made a very positive evaluation, evoking, in many moments, the feeling of accomplishment for working at this institution. One teacher, when questioned about the evaluation he performed of his profession, answered: "Positive, very positive. In my professional career, I feel fulfilled" (SOCIOLOGY TEACHER). The labor aspect narrated is a piece of interesting evidence, since it highlights the positivity of the teaching work done in the Training Institution.

From the documental analysis, it is also important to consider that legislation, in the scope of public policies, also presents elements of the work prescribed to teachers. A good example is the LGB, which, in its article n.13, indicates the task of teachers in their work:

- I. participate in the elaboration of the pedagogical proposal of the educational establishment;
  - II. elaborate and fulfill the work plan according to the pedagogical proposal of the educational establishment;
  - III. take care of the students' learning;
  - IV. establish recovery strategies for the students with lower performance;
  - V. administer the established school days and class hours, besides fully participating in the periods dedicated to planning, evaluation, and professional development;
  - VI. collaborate with the school's articulation activities with families and the community<sup>5</sup>.
- (BRASIL, 1996).

It is important to note that the legislation, among the curricular prescription instruments, establishes actions that teachers must perform in the context of their work, which contributes to establishing the task to be performed by teachers. It is worth mentioning that no prescription substitutes the indispensable full domain of the theoretical and methodological reference of the teaching activities, which, by the way, needs to precede it. The research has revealed this very well.

## The factors that influence the teaching work

According to the research carried out, it was possible to identify different aspects that go through and thus influence the teaching work of the teachers who participated in the *Training Campus* research, such as the meeting of stories, the personal dimension and socioeconomic character of the work, the organization of pedagogical work, the students, the disciplinary field and the work area, professional experience, educational and curricular policies, and the teachers' values.

The Training Institution, like other social institutions, has its history, its social meaning, as well as the teachers carry with them their life history, their professional and personal experiences, which end up mixing with their work activity. In her statement, the math teacher, when exposing about her work, talked about these issues:

I come from a very small town (...). So my whole school life has been in public schools and I come from a school where I had a math teacher practically all through elementary and high school. And that math teacher had no math training. So, I know very well what the impact is, you see, I'm

**5-** Our translation of "I. participar da elaboração da proposta pedagógica do estabelecimento de ensino; II. elaborar e cumprir plano de trabalho, segundo a proposta pedagógica do estabelecimento de ensino; III. zelar pela aprendizagem dos alunos; IV. estabelecer estratégias de recuperação para os alunos de menor rendimento; V. ministrar os dias letivos e horas-aula estabelecidos, além de participar integralmente dos períodos dedicados ao planejamento, à avaliação e ao desenvolvimento profissional; VI. colaborar com as atividades de articulação da escola com as famílias e a comunidade." (BRASIL, 1996).

not saying anything bad about my teacher, I'm saying that he wasn't trained in the area, he didn't have this mathematical knowledge necessary, totally, to teach for all elementary and high school (...). You see, people who graduate from a public university have their education concerned with the practical part, where we make the difference is in a public institution. Because that's where you'll have the students who can't afford to be in a private school, so that's where you make the difference as a teacher; because you give the students the opportunity to have a teacher who has the mastery of content, who knows what he's talking about. (MATH TEACHER).

The interview shows that the recognition of what public school means socially and the teacher's life history drive her to want to teach math at least differently from what she experienced in her basic education.

Related to the history of the teachers as the protagonists of the work activity, there are their personal dimension and the socioeconomic character of the work. The personal dimension refers to the personal strategies used by workers in their work. Factors such as age, gender, history and personal and professional life experience, among others, are part of this dimension (GUÉRIN *et al.*, 2001). Thus, to work is to leave your mark and make a personal investment. In this way, the teachers not only work, but also engage and invest in themselves (GUÉRIN *et al.*, 2001, TARDIF; LESSARD, 2005). For example, it has been identified that the biology teacher relates in a very affectionate and caring way with the students, being a specific characteristic of her. However, this characteristic seems to have been amplified with the arrival of the motherhood of the teacher. According to her, the way of dealing with students has become more loving, more human:

I have always been loving with my students, very human, I always had a great passion for them. I have 21 years of class and never took a student out of class, I don't know what is to scream to a student to shut his/her mouth, first that I think it is too little respectful, then, for having this care, this affection for them. After I became a mother, I love them even more (laughs) [...]. Then, I became loving with these students even more. (TEACHER BERTHA).

This aspect also influences how the teacher relates to her work as a whole. It is seen here how an affective relationship in a family environment (mother-child relationship) seems to intensify the affective relationship between teachers and students. Although this has not been the central focus of the research, it is certainly a subject that deserves deepening and distinction.

Besides the personal aspect, the economic aspect is an important dimension of the work. According to Guérin *et al.* (2001), work is influenced by the social and economic organization in which it is inserted, and it is the result of insertion into a social and economic organization of production. In this way, the school institution is not unaware of this process. The structure of labor, hierarchical relations, the statute, the salary and the division of classes in time are aspects that suffer mutual influence in the curricular materialization.

Another aspect that influences the development of the work refers to the structure of pedagogical work. The school is an institution whose constitution and organizational and social characteristics influence the arrangement and development of teachers' work

in the context of class (FREITAS, 2000; TARDIF; LESSARD, 2005; GIMENO SACRISTÁN, 2000). In this sense, it was possible to perceive the influence of this design in different ways. As an example, the framework of the school year (per quarter), the physical structure of the school, the management and distribution of curricular times, among other aspects, are mentioned.

Among the main subjects listed in the interviews that influence the teaching work of the research partners are the students. This is because one of the aspects emphasized by the interlocutors was that the contents that are taught need to be adjusted to the interests and needs of the students. This adjustment refers to the student's ability to carry out the proposed activities and to understand the teaching:

I always try to divide the content in a way that they have the notion, for example, I couldn't work Biochemistry in the first year, because they haven't studied organic chemistry yet. (INSTRUCTION TO THE DOUBLE: BIOLOGY TEACHER).

The teacher informed that she tries to organize the content in a way that the students can understand what is being treated. In the example, she mentions the exclusion of a theme (biochemistry) because the students did not present knowledge about organic chemistry. It is observed that the organization of the school, the curricular components and the teacher's conception of the disciplinary field also go through this issue. Other teachers informed that they seek to select contents that are more contextualized with the students' lives, aiming to enhance learning. However, this teaching posture deserves reflection, because it is one thing to meet the student's demands, but another thing to suppress curricular contents for lack of prerequisite. In fact, the gaps in content between cycles and learning times are still great curricular challenges to be overcome in the organization of pedagogical work, especially in times of recognition of the necessary and indispensable respect for diversity, in an education that is intended to be inclusive.

The influence of the disciplinary field is another aspect that the research evidence revealed, especially when it refers to teachers who provide curricular components of technical training and general education. It was identified that teachers who teach the subjects of technical content have the world of work as a significant value in the teaching-learning process. On the other hand, teachers of the common core subjects look more to the daily life of students and, in some cases, to the evaluation policies, mainly referring to the National High School Exam (NHSE), in Portuguese it is called Enem, due to the influence of students. Another aspect refers to the teaching materials. Teachers of common-core subjects use textbooks. Teachers of technical subjects, as they do not have textbooks related to their subjects, use professional and, in many cases, higher education technical books and handouts, which are a kind of adaptation of the content for high school.

Another aspect that influences the teaching work, highlighted in the research, was the professional experience. This constitutes what can be called knowledge in patrimony, i.e., those infiltrated in work situations, which are endowed with historicity (SCHWARTZ, 2003, 2010). This knowledge is erected through work activity. According to the work experience of integration of knowledge developed by the teacher of the area of Buildings, he has been carrying out this action from the professional experience in an attempt

to attract the attention of the students. When explaining how he started to integrate knowledge, he answered:

And I tested it in class and it worked very well. Because I realize that the students have classes that I even talk about acoustics of physics, I talk about thermal issue, dilation. Then, I realize that it catches their attention because they will remember what they studied: - Wow... I saw it there in the physics teacher's class, I saw it in the chemistry class, I saw it in biology. For example, when I'm talking about structures and woods I'll mention the types of existing plants, which we use in the structures, it draws their attention. (EDUCATION TEACHER).

According to the teacher, when he doesn't do this, the students are scattered. Then, from the appropriation of this knowledge of the patrimony, which was erected in the context of professional experience, he develops this characteristic.

In this study, we also distinguished the values of the interlocutors who are at stake in the development of the work. These values are the appreciation of the pedagogical work between teachers and students; the participation and understanding of students in relation to the content that was being taught; the contextualization of the content, trying to get closer to the reality of the students; the appreciation of the professional area; the good relationship with the students, observed in the use of a language that is close to them and with a relationship based on respect and permeated with affection and entertainment; the attention, participation, and understanding of the students during the teaching process, which were expressed in the concern with the learning environment and the questions sent to them to remain attentive to the class. The teachers articulate these values related to the students, to the disciplinary area, to the teaching techniques.

However, it was identified that teachers are unaware of the guidelines of current curriculum policies for technical and vocational education at the high school level. Thus, these curricular guidelines affect, in a more effective way, teachers' practice through the organization of the school's general pedagogical work and the prescribed curriculum of the integrated technical courses, related to the operational aspects of the curriculum.

## **Final considerations**

From the analyses, it was able to determine that the process of implementing the NCGTVE on the *Training Campus* has been carried out based on actions proposed by the management team of the Dean and the *Training Campus*, which demonstrates concern with the process of implementing these guidelines.

However, the proposed actions have had little effect on the understanding and practices of the teachers interviewed from the *Training Campus* on the guidelines of the NCGTVE, since, in the teachers' work, other elements influence their activities and the managers seem to ignore or disregard these elements.



In this sense, the greatest effort undertaken in these actions is largely based on solving pragmatic problems related to the operationalization of the curriculum prescribed from these policies, such as reducing the high workload of integrated courses. Also, the actions undertaken by the management were not elaborated with the participation of the teachers. Finally, it is recommended that other studies be carried out on the implementation of curriculum policies and teaching work.

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