Teaching Practice in Professional Technical Education

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ABSTRACT

This article, presented under the heading of bibliographic research, aims at the study of teaching practice in the field of professional technical education, in order to identify and present pedagogical teaching-learning methods as stimuli for a competent teaching performance. Considering that the teacher assumes an important role in the learning process of the students and in the quality of training of the future professionals, this work approaches topics about teaching-learning planning and strategies, use of didactic resources, evaluation of learning and mediation in the teaching. It intends to construct a reflection of the teaching practice in the professional education and stimulates the amplification of the pedagogical technical knowledge.

Keywords: Teaching, Teaching Learning, Professional Education.
1. INTRODUCTION

In Brazil in the last decades, the requirements for qualification for work have increased significantly, due to the population growth, the evolution of capitalist society, consumption growth, technological advances, and other events related to the modern world. Empowering professionals has become strategic for national development, but not only to meet the new configurations of the world of work, but also to contribute to raising the education of workers in general. According to Berger (2009, p.1), professional education has as main objectives:

The training of mid-level technicians, but also the qualification, requalification, reprofessionalization for workers with any education, permanent technological updating and qualification at the middle and higher levels. Professional education should lead to the permanent development of skills for productive life.

According to the Ministry of Education, through the publication of the Centennial of the Federal Network of Professional and Technological Education (BRASIL, 2009, p.7):

The current Federal Network of Professional and Technological Education in Brazil is based on a 100-year history of construction, whose initial activities were the instrument of a policy focused on the "deprived classes" and today it is an important structure for all effective access to scientific and technological achievements.

The educational field, in keeping with these demands of the contemporary world, organized curricula in accordance with the demands of the world of work and underpinned vocational education in skills training. This structure can be observed through:

Educational Plan, which is carried out by the government, through the National Education Plan (PNE), which organizes educational goals at national level, based on the National Education Guidelines and Bases Law (Law No. 9.394 / 96 - LDB) that determines that "school education should be linked to the world of work and to social practice" (LDB, art. 1, § 2).

National Catalog of Technical Courses (CNCT) which is an instrument that disciplines the offer of courses of professional technical education of average level, to orient the institutions, students and the society in general.

National Catalog of Advanced Courses of Technology (CST) which is an instrument carried out by the Ministry of Education with the purpose of improving, strengthening and disciplining the supply of technological courses in order to follow the dynamics of the productive sector and the demands of society.
The training of the technician is carried out in large part by professionals with higher education in the related technological areas, and the vast majority have little or no pedagogical competence to practice teaching. The need for technical pedagogical knowledge, skills and attitudes on the part of teachers in technical vocational education limits their ability to plan teaching and learning, to mediate in teaching, to make appropriate use of teaching resources, to evaluate learning and to know how to work with young people and adults. According to Haydt (2006, p.1).

Education and education are part of the social context and, as this context is dynamic, education and teaching are also dynamic. Therefore, the teacher needs to be always updating himself. But changing a behavior is not easy, especially when the person already has deep-rooted habits. Every change in behavior creates insecurity. Therefore, these pedagogical "innovations" create worries and even confusion in the minds of teachers, especially those who enjoy doing their work effectively.

Faced with the changes in the modern world, the structuring of the objectives of professional education and the needs of technical pedagogical skills required by professionals who work in professional education, this paper aims to present techniques and pedagogical methods as an alternative for the teacher to overcome the present challenges in vocational technical education.

Thus, this article was developed through qualitative research, based on the study, research and bibliographical research of books, pedagogical and vocational teaching documents, addressing topics such as teaching-learning planning, teaching-learning strategies, use of didactic resources and evaluation of learning, in order to propose pedagogical methods and techniques competent in teaching practice.

In the approach to the subject of teaching-learning planning and teaching-learning strategies, it was considered for reflection attitudinal, procedural, methodological and strategic characteristics for reflection on the teaching practice. These foundations are based on the authors: Anastasiou and Alves (2004), Marion and Marion (2006), Haydt (2006) and Menezes (2001).

Next, I describe about the use, importance and planning of didactic resources in the teaching-learning process in the teaching practice. In this scenario, it is based on the author Gil (2011).

Then, in the approach to the theme of evaluation of learning, I consider aspects of relevance, dimensions, assumptions, instruments and evaluation function in the learning process. These foundations are based on the authors: Haydt (2006) and Sant'Anna (2001).

I conclude from the verification of the studies, investigating the importance of the competent teaching practice, in order to reflect on the challenges present in teaching-learning planning, the use of teaching resources and evaluation of learning. Aiming to promote incentives for the professional technical
education teacher to be committed and motivated to permanently update their skills, with the capacity to apply pedagogical methods that guide the teaching-learning process and are committed and hopeful with the social transformations from the contributions of education technical professional.

2. TEACHING-LEARNING PLANNING IN TECHNICAL PROFESSIONAL EDUCATION

Teaching-learning planning in technical vocational education is characterized by a mental process that requires the teacher to define and organize objectives, select and organize contents, select bibliographical references, predict and choose teaching resources, select assessment tools and correction of learning, management of the class schedule and familiarization with school procedures. According to Haydt (2006, p.98):

The teacher, when planning, teaching anticipates, in an organized way, all the stages of school work. Carefully identifies the objectives that it intends to achieve, indicates the contents that will be developed, selects the procedures that will be used as an action strategy and predicts which instruments will be used to evaluate students' progress.

It is important to bear in mind that planning has a procedural character, that is, teaching-learning planning is not limited to the teacher's time of preparation of the teaching unit, but it implies a permanent process of teaching-learning process, which seeks alternatives to problem solving and decision making, reviewing plans and correcting actions. Professional maturity in the design and execution of teaching-learning planning, avoids improvisation, helps overcome difficulties, contributes to the achievement of objectives, saves time and shows the teacher's capacity for professional management and leadership.

According to Haydt (2006, p.101), the teacher, in planning the teaching unit, must establish three stages:

Presentation - At this stage, the teacher will seek to identify and stimulate students' interests, trying to take advantage of their previous knowledge and relate them to the theme of unity. Among the activities of this stage we can relate: pre-test for soldering the students' previous experiences and knowledge; dialogue with the class; expository class to introduce the theme, communicating to the students the objectives of the unit; presentation of material to introduce the subject[...].

Development - At this stage, the teacher organizes and presents teaching-learning situations that stimulate the active participation of students, in order to achieve the specific objectives proposed (knowledge, skills and attitudes). Among the activities carried out in this stage we can indicate: problem solving, projects, text studies, directed study, research, experimentation, group work.

Integration - In this phase, the students will summarize the knowledge worked during the development of
the unit. To carry out this synthesis, the following activities are suggested: oral or written reports summarizing the most important aspects of the unit; organization of synopses and summaries.

Thus, the teacher should be able to elaborate and execute teaching-learning planning and correct it when necessary in order to achieve the educational objectives. It should therefore be able to develop strategies, establish creative forms of teaching and learning, provide the necessary conditions for the development of professional education, carry out a more integrated and interdisciplinary work, provide contextualized didactic transposition and linked to the practical activities of the world of work and citizenship.

The andragogy, a widespread practice such as science, methodology or the art of teaching adults, should be observed as a technique that assists the teacher in his planning, since it is the educator's approach and didactic positioning in front of the adult audience. This approach considers that the adult is a subject who performs several functions in society and who has accumulated knowledge during his life and work trajectory and that the teacher is considered a knowledge facilitator or an information consultant, aimed at dialogue, respect, collaboration, trust, and that seeks to understand the adult considering the psychological, biological and social aspects. According to ROGERS (2011, page 52).

The best planning of adult learning aims to minimize the disadvantages and maximize the advantages of the experience that adults take with them to the learning process. The more students are involved and provide their own experiences, the greater the chances that they will learn quickly.

In this methodology, the teacher is instructed to invite his students to participate in the diagnosis of educational needs, in the preparation of the lesson plan, in the establishment of the objectives, in the evaluation methods, that is, the work is directed to the active participation of the students, and the curricular organization is flexible, aiming to meet the specificities of the students.

Thus, the teacher inviting the student to participate in the teaching-learning process also stimulates the student to reflect on the evolution of the natural and social world from the point of view of human relations with technological progress, to understand how products and technological processes are designed, manufactured and how they can be used. Helping students to develop proactive and socially responsible behaviors in relation to the production, distribution and consumption of technology, and making them understand that their professional contribution is indispensable to help in the maintenance and continuous construction of a more just and equality.

It is worth mentioning that it is also up to the teacher to share professional experiences, to guide students about the possibilities of working in the labor market, to give meaning to the importance of services provided by professionals to society, to encourage the student to discover new knowledge, to stimulate it to be creative, invite you to think and decide for yourself and take responsibility, that is, the challenge is
to promote an education that prepares the individual for different spheres of personal and professional life.

2.1 TEACHING-LEARNING STRATEGIES

The need for learning in the human being is an event present from birth, which must be stimulated with precision and wisdom, so that the human can acquire knowledge, skills, abilities and values that will help him in the quest for quality of life. The choice of the teaching-learning strategy should help the student to mobilize his/her operative thinking schemes and actively participate in learning experiences, observing, reading, writing, experimenting, proposing hypotheses, solving problems, comparing, classifying, ordering, analyzing, synthesizing etc. Table 1 provides a brief transcript of individualized teaching strategies, based on the understanding of the authors (Anastasiou and Alves (2004), Marion and Marion (2006), Haydt (2006) and (Menezes, 2001).

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dimensional perspective, trying to show the hierarchical relations between the concepts pertinent to the content structure. (ANASTASIOU; ALVES, 2004, p.83).

Directed Study
It consists of making the student study a subject from a script prepared by the teacher. This script establishes the extent and depth of the study. (HAYDT, 2006, p.159).

Mailing list by computerized means
It is the opportunity for a group of people to discuss, from a distance, a subject on which they are specialists or have carried out a previous study, or to deepen it by electronic means. (ANASTASIOU; ALVES, 2004, p.85).

Exercise resolution
The study through concrete and practical tasks aims to assimilate knowledge, skills and habits under the guidance of the teacher. (Marion and Marion, 2006, p.

Distance learning
It consists of teaching by interactive environments, modality with the use of interactive communication networks, such as computer networks, the Internet and videoconference systems, and incorporates the media of previous generations (correspondence and teleducation) and creates opportunities for cooperative learning on-line. (MENEZES, 2001).

Strategy

Problems solution
description
It is the confrontation of a new situation, requiring reflective, critical and creative thinking from the data expressed in the description of the problem; demands the application of principles, laws that may or may not be expressed in mathematical formulas. (ANASTASIOU; ALVES, 2004, p.86).

Teaching in small groups
It consists of studying and analyzing a subject in small groups, ranging from five to eight people. It is recommended in situations that require collection and systematization of data and information, problem solving, decision making and tasks. (HAYDT, 2006, p.192).

Phillips 66
It is a group activity in which students are analyzed and discussed about themes / problems in the context of the students. It can also be useful for obtaining quick information about interests, problems, suggestions and questions.
Group of verbalization and observation (GV / GO)

It is the subject / problem analysis under the teacher's coordination, which divides the students into two groups: one of verbalization (GV) and one of observation (GO). It is a strategy successfully applied throughout the process of knowledge construction and requires readings, preliminary studies, in short, an initial contact with the theme. (ANASTASIOU; ALVES, 2004, p.88).