

VOCATIONAL EDUCATION INTEGRATED TO SECONDARY SCHOOL AT A FEDERAL INSTITUTE IN THE NORTH OF BRAZIL: CONTRADICTIONS AND PERSPECTIVES

Cristiane das Neves das Neves, MA

Federal Institute of Education, Science and Technology of Acre, Brazil

Abstract

Held at the Federal Institute of Education, Science and Technology of Acre, the research aimed to identify the perception of the course of 44 students and 13 teachers from 4 classes of Technical Vocational Education in Middle Level Integrated to computer science of Câmpus Rio Branco, during the academic year of 2013, through questionnaires with five questions. The apparent lack of motivation among students proved to be dissatisfaction with the organizational structure. Teachers agreed that reform is paramount in the course offered.

Keywords: Vocational Education, Pedagogical Plan, School Failure

Introduction

As a student I have always considered myself motivated to study, nevertheless I have been through difficult situations in my life, as I believe most people have, they were never reasons for me to leave school. As a teacher, I should say I have been in very comfortable situation once I have as well taught inner motivated individuals; my experience had been in schools in the State of São Paulo (Southeast of Brazil) before moving to the State of Acre (North of the same Country).

Vocational education was originated especially to attend the poor, those who had not enough abilities, financial conditions nor knowledge to work as employers, who had their workforce demanded by the industrial production as it started in Europe. In Brazil, it has not been different at all, industry and profit hunger were the great demanders of professionalization, better education for every individual is not a present from our governors, it attends mostly the capital greed.

In 2008, the government created a new educational structure in the Country, the Federal Institutes of Education, Sciences and Technology aiming at spreading high quality vocational education. The Institutes offer courses in the forms of Integrated to Secondary Level, Technical Vocational Education, which comprehends developing abilities to specific professional function for whom has already finished regular Secondary Level and Technology Education of College Level.

In Rio Branco, State of Acre, in the North of the Country, the Federal Institute was the first federal institution of vocational education and second public school to offer academic level courses. Due to political interests or to lack of these, most part of what was promised was neglected. There was no organized library for the students, they had no cafeteria in the school, there was no healthy food around the neighborhood for them to buy, the curriculums of the courses were not well organized, among other promises from the administrators that were not fulfilled. Consequently, there had been a huge number of students leaving, asking for being transferred to other regular schools or simply quitting studying,

The institute started High School integrated to Computing under bad conditions, at a rented building without proper structure, teachers and professors were contracted although had no orientations at all, not at least about what a Federal Institute actually was, its history of foundation and purposes. Not even could professors count on pedagogical assistance, nor the students had psychological, pedagogical or any other necessary support.

Inevitably, those students, the majority of them from poor and segregated families, continued without better perspectives for their lives or studies, thus many of them quit or failed. Failure at these groups has been taken as something normal. As a teacher, I used to feel lost and very tired, everything I tried to do to help those students left the impression of being useless, and thus, I experienced the sensation of complete impotence.

It was not an exception to hear teachers complaining about those students, they seemed completely demotivated, neglected, they did not have the habit of studying at all, they missed and failed evaluation tests frequently. Observing that situation made me rethink and reconsider all my previous beliefs on what sense it really makes to study, desire a professional carrier, once this seemed to be of no importance for those young adolescents.

Therefore, I decided to hold a research to be able to find out what their thoughts were in fact, most of us teachers agreed that it was hopeless to try anything to turn them on to their studies.

How the Plan of the Course is ‘dis’organized

The Vocational Secondary Education Integrated to regular high school at the Federal Institute of Acre (IFAC), Campus Rio Branco, is on Information and Communication Axis, it was created by Resolution No. 51 published on 29 December of 2011, authorizing the course to the city of Sena Madureira. It intends to be according to the National Catalogue of Vocational Courses, to be operated in morning and afternoon shifts, offering 40 vacancies from 2011, with 3755 hours in 8 semesters, culminating in Diploma of Computer Technician. The first group in Rio Branco, capital of Acre, during the first semester, had 62 students enrolled, 20 dropped out and 9 failed. In 2012, 33 students were enrolled in the second grade and 50 in the first, a total of 83 students, 25 dropped out and 10 failed at the end of the year.

In 2013, 94 students made enrollment in first, second and third series, ending the year with 27 dropouts and 21 failures. In 2014, we have 105 students distributed as follows: 47 in the first series; 22 in the second, from the 49 of the first series plus those who failed the second series of the previous year; 24 in third grade, 26 of the previous year plus those who failed. Only 12 in the fourth series from the 62 students enrolled in 2011.

The class of 2011 had great evasion every year; the 2012 class had great evasion in the first series only, in the second grade most students remained. A present feature in this class is greater parent participation in meetings; parents are constantly talking to the Coordination of the course aiming at accompanying the development and behavior of their children. The class of 2013 went from 59 to 22, the group was divided into two but students were leaving the school very quickly during the year.

The first Coordinator prepared the Course Pedagogical Plan (Plano Pedagógico do Curso - PPC), having undergone changes with each new Coordination. A team from the Teaching Department (*Pró-Reitoria de Ensino - PROEN*) assessed and resolved to adopt the same plan to Sena Madureira and Rio Branco. The last Coordination of Information and Communication Axis made changes in 2013, the plan is waiting for the approval of PROEN.

The document constitutes of the pedagogical project of the Middle Level Technical Course in Computing, in the integrated form. Based on legal guiding principles and educational levels such as in LDB (Lei de Diretrizes e Bases da Educação Nacional) No. 9.394/96, as well as the Decree 5.154/2004, CNE (*Conselho Nacional de Educação*) / CEB (*Câmara de Educação Básica*) No. 1/2004.

The CNE / CEB # 2 of January 2012 laying down National Curriculum Guidelines for Secondary Education, the CNE / CEB No. 11/2012 and Resolution No. 6 of September 20 on the National Curriculum Guidelines for Professional Education of Technical Middle Level are important references that are not mentioned in the Course Plan.

The guidelines to the proposal are that the institutional understanding is of education as a social practice, “which is materialized in the social function of IFAC, to promote scientific, technological and humanistic education, in order to form and qualify citizens, with an emphasis on local, regional and national socioeconomic development”.

The “vision” presented in the PPC is based on a phrase from the former Rector Marcelo Mingheli, that the new revolution at Acre would happen through education, science and technology, which is different from the vision of the Plan for Institutional Development 2009-2013, also available on the website of IFAC. This Plan is a document legally required for the approval of higher education and used for planning and as a management tool, "presents the identity of the institution and its strategies for fulfilling the institutional mission." (PDI / IFAC, 2009-2013)

The Plan also proposes to offer Technical Course in Computer Integrated Secondary seeking to contribute to raising the quality of services rendered to the company, through a process of appropriation and production of scientific and technological knowledge, able to boost the economic development of the State of Acre.

Among the students from the first class in 2011, none was engaged in any project of a scientific or technological production, and so far no student from another class was in this situation. The course aims to train professionals for "implementation, evaluation, support and maintenance of systems and technologies, processing and transmission of data and information, including hardware and software, aiming at applications in the production of goods, services and knowledge". As well as fully develop the learner, his ability "to generate knowledge from an interactive practice with reality" and with bold proposal to cause "high intellectual constructions, through the appropriation of concepts which are necessary for conscious intervention in reality".

Regarding the education of our students, the course seems to require too much from developing a professional acting on different segments of IT, to "emphasize the development and maintenance of information systems, database, hardware maintenance, care and support users and also technical support on computer hardware and computer networks". The formation can be assumed to be shallow since that at the National Catalogue of Vocational Education from MEC (*Ministério da Educação e Cultura*) Technical Informatics has the overemphasis on programs (software) as it describes the professional as someone who “Develops computer programs, following the specifications and paradigms of logic programming and programming languages. Uses systems development, operating systems and database environments. Performs testing of computer programs, maintaining records that enable analysis and refinement of the results. Performs maintenance of deployed computer programs”.

The internet was not mentioned before, but serves as a justification for this eclectic "profile", refers to the insertion of the trainee in the workplace, but there is no substantial, reliable data on the local market, and the "space increasingly prominent” and “the internet as part of the strategic planning for the development of Acre" is vague and imprecise information.

There is no justification in the text of the Course Plan for such a qualification as though it would requires over 3000 hours to make it possible, at least according to the National Catalogue. As it brings three other courses, each with at least 1,000 hours for the formation of Computer Technician for Internet Technician Maintenance and Informatics Support and Computer Network Technician. Besides, the Catalogue suggests five other

courses on the same axis: Computer Graphic Technician, Technician Programming Digital Games, Switching Systems Technician, Technician Transmission and Telecommunications Technician. Some of these courses might bring greater contribution to the "revolution" proposed in Acre.

The specific objectives of the course are confused between ultimate goals students training and course objectives,

- Act in the design and construction of software systems in general;
- Acquire conditions for analyzing organizational problems and to use appropriately and economically, hardware resources and software in their solution;
- Using different programming languages and different Management Systems Database;
- Know and understand the key techniques for modeling and specifying software systems;
- Implement software systems for Internet based on the proposed models;
- Validate and deploy software systems for various needs;
- Understand, detect and correct problems in hardware and computer networks;
- Understand the real needs of the working world, having the function to organize, coordinate and create technological solutions for processing;
- Encourage the preparation of the student for work and citizenship, to continue learning in order to be able to adapt flexibly to new conditions of occupancy or later processed;
- Provide a professional education that contributes to ethics training and development of intellectual autonomy and critical thinking.

The final profile, in my view, is another problem, because it proposes various attitudes and values that are not encouraged nor acquired in a course with a curriculum that contains various disciplines, distributed at intervals of 45 minutes of class with teachers who sometimes meet and introduce themselves in the corridors. The profile has confused understanding. It transcribes the professional profile from MEC's Catalog and does not mention the result of the development of skills that should be worked to maintain hardware or networks, for example.

The egress from the technician course in Computer integrated to high school will be a professional with a solid theoretical and practical training, humanistic and ethical stance with ability to learn continuously with logical reasoning that will enable understanding and problem solving. Able to participate in Professional teams, indispensable feature in today's world characterized by increasing quest for knowledge and new technologies and the intense connectivity, able to act in an entrepreneurial way with the world of work, working in the public or private initiatives, as well as the third sector that requires professionals in this area.

According to the National Catalogue of Vocational, the Computer Technician develops computer programs, following the specifications and paradigms of programming logic and programming languages. Uses systems development, operating systems and database environments. Performs testing of computer programs, maintaining records that enable analysis and refinement of the results. Performs maintenance of deployed computer programs.

The Plan also proposes the interdisciplinarity, integration, working with "complex issues", concepts that are not discussed among the teachers of the course.

The Technical Computing course aims to promote through integration between teaching, research and extension, extensive professional training that enables meet the significant demand for professionals in our region.

However, the most serious, I believe, is the mention of the integrated curriculum and "approaches based in the perspective of complex themes" and then:

But whatever the form of organization for the construction of the integrated curriculum is, it is essential to build the dialogue between experiences, the diagnosis of local realities and demands, the existence of an elaborate planning that is executed collectively and democratically. This indicates the need for periodic educational meetings for all involved in the process.

It is clear that there is no planning and organization, the document gives the understanding that this is yet to happen and that "IFAC will organize interdisciplinary projects", generalizing and failing to place the responsibility for someone or some sector or campus specifically. The first PDI of IFAC provides the student extracurricular service. It affirms that "we want to encourage critical thinking, creative thinking and flexibility" and that the educational activities should not be restricted to the context of lessons, students should have extra-care as a way to complement the activities in the classroom. (PDI-IFAC, 2009)

To try to alleviate the lack of such care, the Coordinator of Information and Communication Axis who assumed at the beginning of 2014 created the class "mentoring" for each class of Integrated high school there is a teacher who has the responsibility to monitor more closely the students. I have a class to "take care"; when talking to the students to check how they were doing, I received complaints about difficulty with the discipline of Physics. When talking with the teacher, he explained to me that he could not do much, he said that students needed to catch up. I asked what was wrong in his opinion and he told me they had a lot of disability in Mathematics and in interpretation of texts, that was why they did not do well in his classes. Math teacher could not help as he works full time.

Trying to find an alternative, I heard a student say that a classmate was very good at mathematics, we had the idea of asking him to study with colleagues, they liked the proposal, but this is an isolated and incipient action, there is the need of an educational support to solve these issues.

The curriculum of the course contradicts the proposal of working with complex themes or thematic projects. The professional practice, which presupposes the development of integrative activities, extension, research, product development and the profession does not seem to be planned, encouraged, organized and subsidized for this purpose. The library does not have all the literature, there is not a system that allows the loan of books, individual laboratories are not organized.

Conclusion

It was intended to conduct the research with 95 (ninety five) students of the three existing classes at the beginning of the year 2013 and 19 teachers, however, we reached only 44 (forty-four) students' responses, we had great evasion, mainly in first grade. And 13 teachers answered the questionnaire.

An open questionnaire was designed with questions aimed at investigating the motives of students for choosing the course, their expectations and course evaluation, as well as what they planned to do after graduation. The questionnaire to the teachers allowed us to identify what they expected of their students, their perception of the students' commitment, their course evaluation and requested suggestions for smoothing the failure and dropouts, and even what they visualized for students after course completion.

Upon completion of the preparation of the questionnaire and the terms of consent, parents were invited to attend a meeting to present the research proposal and to be asked to sign the terms. Students gathered in a room, they were asked to complete the questionnaire, I collected the forms, responses were transcribed and analyzed.

The statements of many teachers denote that they gave up these youths. At IFAC, the administrative and pedagogical 'dis'organization collaborates with tiredness, as the teacher, when trying to recover the motivation of their students, feels helpless. On the other hand,

students also feel helpless, we can say that they are alienated from the concept of Marx, because the student feels vexed, once studying at IFAC is necessary because it is imposed either by the family or the circumstances. The situation, for example, of the third year; studying at IFAC becomes a means to satisfy the need to go to college to learn specific abilities, however, the prospects of leaving IFAC with competence to work or be successful in an exam to go to college are minimal. Students do not recognize themselves in the course, we work with the perspective of forming people who will be able to work, but they themselves feel disadvantaged by lack of infrastructure.

The fact that several students get out of the classroom, not bothering to do the assessments, demonstrates the feeling of mortification and displeasure in studying. They feel they are free when chatting, when they are on the phone, or listening to music. "... In its specifically human functions, the worker gets animalized; in the exercise of their animal functions, one humanizes himself. "(PATTO, 1993, p. 16)

Both the government and the third sector companies are expanding the offer of vocational education, because this is the only alternative to the inclusion of the marginalized in the "process of circulation of goods"? This goal leads us to the welfare and economic character of early vocational education, linking the "capital reproduction" process to a, if there is one, social and political project "articulating the struggles of workers for their social, political and economic emancipation" (ditto), the latter being a closer idea of the purpose for which the Federal Institutes were created.

The Lula government has brought the possibility of debate between different agents, defining a more democratic way of establishing policies for professional education; however, it has preserved the economic development model of Fernando Henrique Cardoso, contradiction explicated by researchers.

In reality, the political integration of high school with a technical-vocational training was not actually implemented, unfortunately, as we note above, these measures are actually false in progress; simulacra that distract us while allowing the victory of the conservatives, who, in the midst of 'a change', keep everything as it was before (FRIGOTTO; CIAVATTA and RAMOS 2005a, p.1.090 in OLIVEIRA 2012, p.87)

Oliveira (2012) does not see the school as an area of "reproduction and spread of bourgeois ideology" nor as "insurer of mentalities committed to a new social order", but as "contradictory location because it is immersed in conflict interests in the wake of possibilities". Students, teachers, parents and administrators do not always perceive that reality, the school has the ability to reset its values and its actions. The dynamism and human capacity for learning is what gives meaning to school, our students are probably claiming that we should be dynamic, daring, however, we bring addictions from paralyzed in time and rigid institutions thus we are convinced that the only way is to reproduce the logic of capital.

Our effort can even be towards forming critical thinkers and citizens, but we do not have that capability yet, we ourselves are stuck to our training, our formation, we are deluded slaves and still our intention is to educate for freedom and creativity.

The expansion of the federal system has happened rapidly, from 2009 until today hundreds of new institutes and campuses were created. Thousands of new technicians and teachers have been hired, "but it has not been taken into account the time required for the construction of a political and pedagogical project collectively, compromising the quality and effectiveness of the actions of the institutes". (MOURA 2012, p 63).

For us teachers, it is inexorably necessary to undress from our fear of evaluation, the teacher must be evaluated as much as like their students are evaluated, they need to talk to their students and must allow them to be frank. It is natural that students commit erroneous judgments, however, it is very important to know and consider what they think and feel. Listen first, establish the rules and methodologies together, even with the participation of

students, we need to be eager to learn new "stuff", "things" of different natures, to get closer to the reality of the students. Knowing they are dealing with other subjects in this transitional stage of life of any human being, adolescence is a phase of great discoveries and experiments, that is nonetheless painful, because you want without really knowing yet how to achieve what you want or why.

Another indispensability is the training of new servers, at this point I was privileged, since participation in the Graduate Program in Agricultural Education gave me more than an academic degree, triggered massive transformation in my life history, in my social and professional relationship, in my pedagogical practice. After this experience, I will never have the same look and way to assess and conduct my duties; moreover, I will always know that there is an unknown universe of possibilities and knowledge.

I would like to emphasize that visiting other professional education institutions contributed to the understanding that we all have strengths and weaknesses, however, our focus has been our weaknesses, we have, undoubtedly, strengths and opportunities for constructing the identity of the Federal Institute of Acre and a solid and competent basis for our work. What we must avoid is the postponement of working together, there is no time for regrets; time now should be of enthusiasm, unity, cooperation and effective work toward the collective creation of the guiding documents of our pedagogical practice.

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