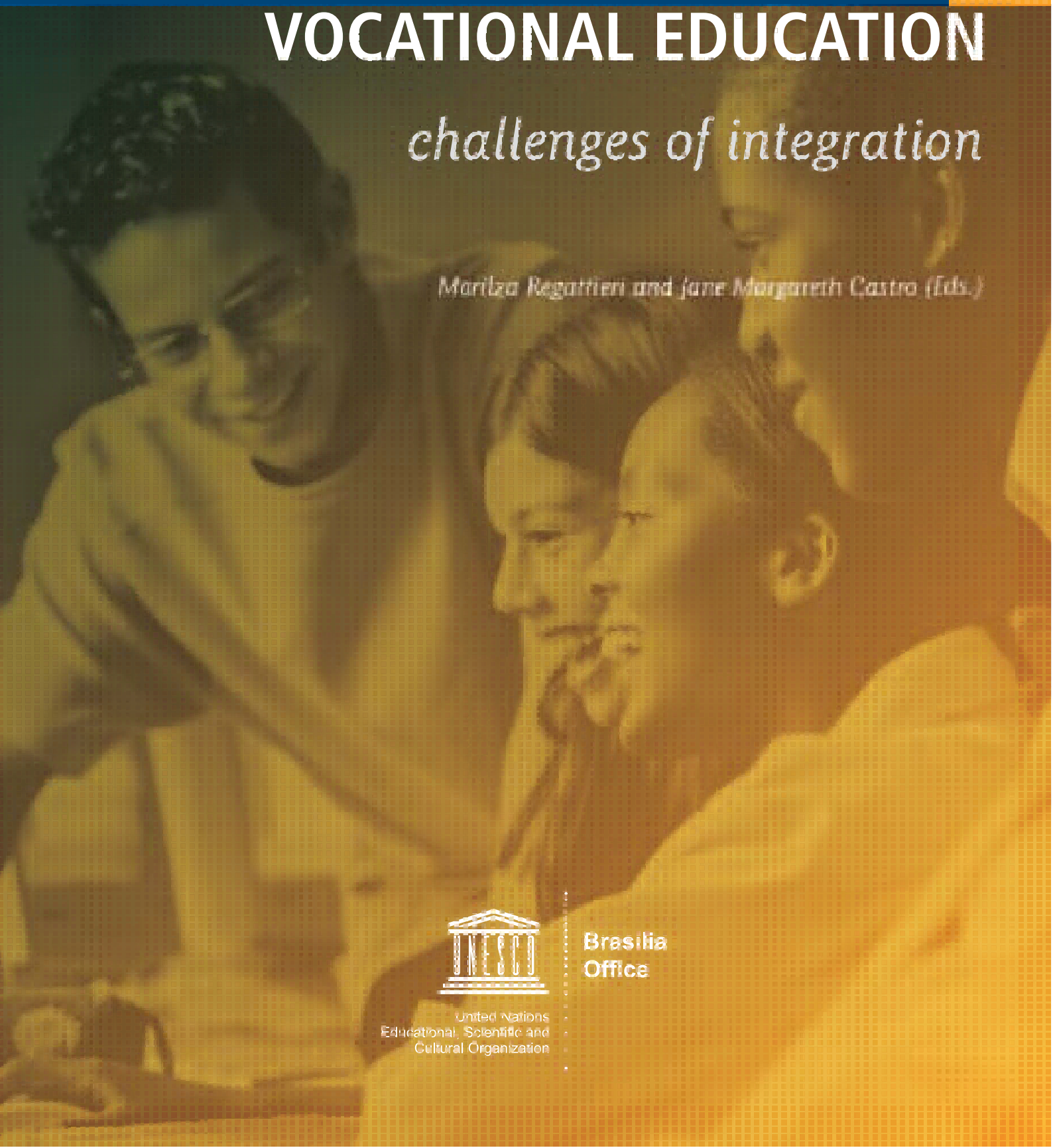
UPPER SECONDARY EDUCATION and VOCATIONAL EDUCATION

challenges of integration

Marilza Regattieri and Jane Margareth Castro (Eds.)



United Nations
Educational, Scientific and
Cultural Organization

Brasilia
Office

UPPER SECONDARY EDUCATION and **VOCATIONAL EDUCATION**

challenges of integration

Marilza Regattieri and Jane Margareth Castro (Eds.)

United Nations
Educational, Scientific and
Cultural Organization

**Brasilia
Office**

Published by the United Nations Educational, Scientific and Cultural Organization.

Original title: Ensino médio e educação profissional: desafios da integração. 2nd.ed. Published in 2010 by UNESCO Brasilia Office.

Coordination: Education Unit of UNESCO Brasilia Office
Translation: Dermeval de Sena Aires Jr.
Translation revision: Patrícia Osório
Cover and Graphic Design: Visual Communication Unit of UNESCO Brasilia Office

Upper secondary education and vocational education: challenges of integration / edited by Marilza Regattieri and Jane Margareth Castro. – Brasilia: UNESCO, 2013.
264 p.

ISBN: 978-85-7652-170-9

1. Upper Secondary Education 2. Vocational Education 3. Technical Education 4. Educational Policies 5. Brazil I. Regattieri, Marilza II. Castro, Jane Margareth III. UNESCO

United Nations
Educational, Scientific and
Cultural Organization

UNESCO Brasilia Office
SAS, Quadra 5, Bloco H, Lote 6,
Ed. CNPq/IBICT/UNESCO, 9º andar
70070-914 – Brasília/DF – Brasil
Tel.: (55 61) 2106-3500
Fax: (55 61) 3322-4261
E-mail: grupoeditorial@unesco.org.br
Site: www.unesco.org/brasilia
www.facebook.com/unesconarede
www.twitter.com/unescobrasil

Table of Contents

Themes

Foreword

This publication is an initiative of the UNESCO Office in Brazil to contribute to the implementation and follow-up of the new proposal to build a model of Secondary Education integrated with Vocational Education. This proposal has been sought through reformulations of the Brazilian educational legislation since 2004. Since then, it is important to advise that the acts, norms, regulations, and documents produced by the Ministry of Education in Brazil (MEC) and by the National Council of Education (CNE) have been in agreement with the conclusions of the International Meeting "Learning for Work, Citizenship and Sustainability" organized by UNESCO that took place in Bonn, Germany, in 2004. Focused on Technical and Vocational Education, the Bonn Declaration* highlights that the development of abilities and proficiencies, "should be an integral part of education at all levels"; and that it is "especially important to integrate skills development in Education for All (EFA) programs" in order to meet the demand for Vocational Training of learners completing Basic Education.

The UNESCO Education for All Programme that monitors Education in the entire world through its yearly *Education for All Global Monitoring Report,* indicated in 2008 edition that only 46.9% of Brazilians aged 15 to 17 were on Upper Secondary Level in 2006, whereas Primary Education encompassed 94.8% of the population aged 7 to 14 years old. According to data of the Ministry of Education in Brazil, the distortion between age and school year at the Upper Secondary Level in 2005 was of 51,1%; and in the North and Northeast of the country, the situation was even worse, reaching 69.6% and 70% respectively. In the same year, the National Household Sample Survey (PNAD) – conducted by the Brazilian Institute of Geography and Statistics (IBGE) – indicated that an estimated two thirds of the 8.9 million young students (67%) enrolled in Brazilian schools were

* UNESCO. *The Bonn Declaration.* UNESCO International Experts Meeting on Technical and Vocational Education and Training: Learning for Work, Citizenship and Sustainability. Bonn, Germany, 2004. Paris: UNESCO, 2005. 4 p. Available at: <http://unesdoc.unesco.org/images/0014/001405/140586m.pdf>.

from families with a per capita income equal to or below the minimum wage. Another aspect that characterizes social inequality in Brazil is the population's skin color: in 1999, only 21% of young individuals with black skin color aged 15 to 17 were in secondary schools; the situation improved in 2006, when this figure reached 37.9%. It is still lower than the figure for students with white skin color in the same age group (58%).

The Report to UNESCO produced by the International Commission on Education for the 21st Century, coordinated by Jacques Delors* points out four essential pillars for Education in the 21st century: learning to know, learning to be, learning to do, and learning to live together. These pillars must be part of any discussion on Education at all levels of teaching – particularly at the Upper Secondary Level. Education is a fundamental right of all persons. Not only that: it is a very powerful tool for building a fairer, more democratic and equitable society. Upper Secondary Education plays an extremely relevant role in this construction.

Therefore, the proposed integration of Upper Secondary Education** with Vocational Education, established by Decree 5154 of 2004, deserved special monitoring. The UNESCO Office in Brazil contributed to undertaking a study focused on actual cases of the proposal's implementation. This study – named *Integration of Upper Secondary Education with Vocational Education* – is the first part of this publication.

Based on the possibility that this contribution could be more effectively incorporated in the discussion and the strengthening of the Brazilian educational policy guidelines, UNESCO organized a workshop in 2008 to discuss the study results. The discussions were held on fundamental issues linked to: the provision of Vocational Training and Education for citizenship development; the design and efforts to structure curricular proposals and school projects; capacity building and teachers' improvement; educational financing and the integration of schools with local, regional and national development. Its goal was to reach social integration and respond to the need of designing a diversified provision of Upper Secondary Education, taking into account the population that is outside the appropriate age range,

---

* UNESCO. *Learning*: the treasure within; report to UNESCO of the International Commission on Education for the Twenty-first Century. Paris, UNESCO; London, HMSO, 1996.

** In Brazil, Upper Secondary Education (*Ensino Médio* in Portuguese) comprehends the last three years of compulsory education – 10th, 11th and 12th grades (from 15 to 17 years of age). It is equivalent to level 3 in the International Standard Classification of Education (ISCED).

besides considering social and economic inequalities. The discussions on Upper Secondary Education and on Vocational Education between directors, experts and activists in Education are included in the second part of this book.

With this publication, we also hope to accomplish one of the specific missions of this Organization, namely to provide technical assistance and contribute to knowledge production allowing effective advancements in the attainment of the Education for All goals. Among these goals, we particularly highlight reaching the learning needs of all children, youth and adults through equitable access to the appropriate learning, training and capacity building programs for life in the contemporary world, by 2015.

Vincent Defourny
UNESCO Director in Brazil

PART 1

INTEGRATION OF UPPER SECONDARY EDUCATION WITH VOCATIONAL EDUCATION

Introduction

In 2007, the UNESCO Office in Brazil promoted the present study on integration initiatives of Upper Secondary Education with Vocational Education, based on the legal regulations established in 2004. The work aimed at providing inputs to public managers, with a focus on the actual cases of two distinct Brazilian state schools: one in the North and one in the South of the country.

Firstly, the study structures the legal framework for the design and implementation of this integrated mode. It is limited to the effective national legislation and norms, which are considered pertinent and significant for the analysis of the theme. It also outlines the historical context of Technical and Vocational Education at Upper Secondary Level, indicating moments when more expressive qualitative leaps have taken place in terms of educational policies.

Secondly, the pertinent ministerial documents are addressed and analyzed, as well as other non-official documents that outline these policies from the doctrinal standpoint.

The third part presents the two case studies on the implementation of Technical and Vocational Education at Upper Secondary Level in an integrated way in order to enable understanding and actual execution of these policies.

The conclusion proposes some considerations and points out the critical questions and recommendations that are supposed to stimulate new analyses and to provide inputs to governmental managers regarding the implementation of this Education modality.

Bahij Amin Aur [1]
UNESCO Consultant

1. Mr. Bahij Amin Aur is an educational consultant for UNESCO and for UNDP. He works with public and private educational institutions at primary, secondary, vocational and university levels. He is also responsible for the study on the integration of Upper Secondary Education with Vocational Education.

Legal Framework

To structure the legal framework in order to provide a basis for the design and implementation of the integrative policies for Secondary Education and Vocational Education, a study was undertaken on the effective national legislation and norms related to Vocational Education and Upper Secondary Education issued in recent decades. The research was rather selective than exhaustive; that is, it was mainly focused on the pertinent and most significant acts and norms related to this particular analysis.

National Legislation and Norms

Constitutional provisions, acts and federal decrees linked to the policies of the Ministry of Education have been selected and analyzed – especially the ones prepared by its former Secretariat of Secondary and Technological Education (SEMTEC), currently called Secretariat of Vocational and Technological Education (SETEC) – along with resolutions and legal opinions of the former Federal Council of Education (CFE), under the aegis of Act 5692 of 1971, and of the current National Council of Education (CNE)[2]. The following main documents were examined:

- *Lei nº 5.692/1971 (revogada pela Lei nº 9.394/1996)* [Act 5692 of 1971 – abrogated by Act 9394 of 1996];
- *Parecer CFE nº 45/1972 (revogado pela Resolução CNE/CEB nº 4/1999)* [Legal Opinion CFE 45 of 1972 – abrogated by Resolution CNE/CEB 4 of 1999];
- *Constituição Federal de 1988, especialmente o Capítulo III – Da educação, da cultura e do desporto, e sua Seção I – Da educação, artigos 205 a 214* [Federal Constitution of 1988, especially Chapter III on Education, Culture and Sports, and particularly Section I on Education, articles 205 to 214];

2. See the legal opinions and resolutions of the National Council of Education, which are mentioned in the first part of the present study.

- *Lei nº 9.394/1996, de Diretrizes e Bases da Educação Nacional (LDB), especialmente a Seção IV – Do ensino médio, artigos 35 e 36, e o Capítulo III – Da educação profissional, artigos 39 a 42* [Act 9394 of 1996, which approved the Guidelines and Bases of National Education (LDB), especially Section IV on Upper Secondary Education, articles 35 and 36, and Chapter III on Vocational Education, articles 39 to 42];
- *Lei nº 10.172/2001, que aprovou e instituiu o Plano Nacional de Educação (PNE), especialmente os itens 3 – Ensino médio, 5 – Educação de jovens e adultos, e 7 – Educação tecnológica e formação profissional* [Act 10172 of 2001, which approved and created the National Education Plan (PNE), especially item 3 on Upper Secondary Education, item 5 on Youth and Adult Education, and item 7 on Technological Education and Vocational Training];
- *Decreto nº 2.208/1997, que regulamentava o § 2º do art. 36 e os artigos 39 a 42 da Lei nº 9.394/1996 (LDB) e foi revogado pelo Decreto nº 5.154/2004* [Decree 2208 of 1997, which regulated paragraph 2 of article 36, and articles 39 to 42 of Act 9394 of 1996 (LDB), abrogated by Decree 5154 of 2004];
- *Parecer CNE/CEB nº 15/1998, que trata das Diretrizes Curriculares Nacionais para o Ensino Médio* [Legal Opinion CNE/CEB 15 of 1998, on the National Curriculum Guidelines for Upper Secondary Education];
- *Resolução CNE/CEB nº 3/1998, que institui as Diretrizes Curriculares Nacionais para o Ensino Médio* [Resolution CNE/CEB 3 of 1998, which created the National Curriculum Guidelines for Upper Secondary Education];
- *Parecer CNE/CEB nº 16/1999, que trata das Diretrizes Curriculares Nacionais para a Educação Profissional de Nível Técnico* [Legal Opinion CNE/CEB 16 of 1999, on National Curriculum Guidelines for Technical and Vocational Education at Upper Secondary Level];
- *Resolução CNE/CEB nº 4/1999, que institui as Diretrizes Curriculares Nacionais para a Educação Profissional de Nível Técnico* [Resolution CNE/CEB 4 of 1999, which created the National Curriculum Guidelines for Technical and Vocational Education at Upper Secondary Level];
- *Decreto nº 5.154/2004, que regulamenta atualmente o § 2º do art. 36 e os artigos 39 a 41 da Lei nº 9.394/1996 (LDB), revogando o Decreto nº 2.208/1997* [Decree 5154 of 2004, which currently regulates paragraph 2 of article 36 and articles 39 to 41 of Act 9394/1996 (LDB), abrogating Decree 2208/1997];

- *Parecer CNE/CEB nº 39/2004, que trata da aplicação do Decreto nº 5.154/2004 à educação profissional técnica de nível médio e ao ensino médio* [Legal Opinion CNE/CEB 39 of 2004, on the application of Decree 5154 of 2004 to Technical and Vocational Education at Upper Secondary Level and to Upper Secondary Education];
- *Resolução CNE/CEB nº 1/2005, que atualiza as Diretrizes Curriculares Nacionais definidas pelo Conselho Nacional de Educação para o ensino médio e para a educação profissional técnica de nível médio, ajustando-as às disposições do Decreto nº 5.154/2004* [Resolution CNE/CEB 1 of 2005, which updates the National Curriculum Guidelines defined by the National Council of Education for Upper Secondary Education and for Technical and Vocational Education at Upper Secondary Level, thus adjusting it to the provisions of Decree 5154 of 2004];
- *Resolução CNE/CEB nº 4/2006, que altera o art. 10º da Resolução CNE/CEB nº 3/1998, na qual se instituem as Diretrizes Curriculares Nacionais para o Ensino Médio* [Resolution CNE/CEB 4 of 2006, modifying article 10 of Resolution CNE/CEB 3/1998, in which the National Curriculum Guidelines for Upper Secondary Education are created];
- *Parecer CNE/CEB nº 38/2006, que trata da inclusão das disciplinas de Filosofia e Sociologia no currículo do ensino médio* [Legal Opinion CNE/CEB 38 of 2006, on the inclusion of Philosophy and Sociology among the subjects of the upper Secondary Level curriculum];
- *Parecer CNE/CEB nº 35/2003, que trata da organização e da realização de estágio de alunos da educação profissional e do ensino médio* [Legal Opinion CNE/CEB 35 of 2003, on the organization and practice of internship for Vocational Education and Upper Secondary Education students];
- *Resolução CNE/CEB nº 1/2004, que estabelece Diretrizes nacionais para a organização e a realização de estágio curricular supervisionado de alunos da educação profissional e do ensino médio* [Resolution CNE/CEB 1 of 2004, which created national guidelines for organizing and executing activities of supervised curricular internship for Vocational Education and Upper Secondary Level students];
- *Parecer CNE/CEB nº 11/2000, que trata das Diretrizes Curriculares Nacionais para a Educação de Jovens e Adultos (EJA)* [Legal Opinion CNE/CEB 11 of 2000, on the National Curriculum Guidelines for Youth and Adult Education (YAE)];

- *Resolução CEB/CNE nº 11/2000, que estabelece as Diretrizes Curriculares Nacionais para a Educação de Jovens e Adultos* [Resolution CEB/CNE 11 of 2000, setting the National Curriculum Guidelines for Youth and Adult Education];
- *Decreto nº 5.478/2005, que institui, no âmbito das instituições federais de educação tecnológica, o Programa de Integração da Educação Profissional ao Ensino Médio na Modalidade de Educação de Jovens e Adultos (PROEJA), e Decreto nº 5.840/2006, que institui o Programa Nacional de Integração da Educação Profissional com a Educação Básica na Modalidade de Educação de Jovens e Adultos (PROEJA), ampliando o anterior* [Decree 5478 of 2005, which created, under the scope of the Federal Institutions of Technical and Vocational Education at Upper Secondary Level, the Program of Integration of Vocational Education with Upper Secondary Education in the Modality of Youth and Adult Education (PROEJA), and Decree 5840 of 2006, which created the National Program of Integration of Vocational Education with Basic Education[3] with the Modality of Youth and Adult Education (PROEJA), expanding the previous decree];
- *Resolução CEB/CNE nº 4/2005, que inclui novo dispositivo na Resolução CNE/CEB nº 1/2005 (que atualizara e ajustara as Diretrizes Curriculares Nacionais para o ensino médio e para a educação profissional técnica de nível médio às disposições do Decreto nº 5.154/2004)* [Resolution CEB/CNE 4 of 2005, including a new provision in Resolution CNE/CEB 1 of 2005 (which had updated and adjusted the National Curriculum Guidelines for Upper Secondary Education and Technical and Vocational Education at Upper Secondary Level to the provisions of Decree 5154 of 2004)];
- *Parecer CNE/CEB nº 20/2005, que inclui a educação de jovens e adultos, prevista no Decreto nº 5.478/2005, como alternativa para a oferta da educação profissional técnica de nível médio de forma integrada com o ensino médio* [Legal Opinion CNE/CEB 20 of 2005, including Youth and Adult Education, as defined by Decree 5478 of 2005, as an alternative to the provision of Technical and Vocational Education at Upper Secondary Level integrated with Upper Secondary Education].

---

3. Editor's Note: In Brazil, Basic Education comprehends Early Childhood Education, Primary Education, Lower Secondary Education, and Upper Secondary Education, that is, levels 1, 2 and 3 of the International Standard Classification of Education (ISCED).

The Historical Context

In the analysis of the legal documents and norms, a general description of the context was considered timely, observing the development of Vocational Training in connection with the current reality of Upper Secondary Education and Technical and Vocational Education at this level. This contextualization shed light on particular times when more significant qualitative leaps were taken, which are mentioned here as "decisive moments" for educational policies focused on Vocational Training.

The first initiatives to implement Vocational Education in Brazil reveal a clear welfarist intention as they were devised in order to "support orphans and other out of favor individuals". The first of these initiatives was the creation of School of Factories [*Colégio das Fábricas*], by Prince Regent Dom João in 1809. It was already connected to the emerging economical needs as it took place right after the cessation of the manufacturing industries activities interdiction in Brazilian territory.

Since this first governmental action, and all the way through the initiatives of the Second Regency [1840-1889], the provision of this type of Education was aimed at disadvantaged children and adolescents. Civil associations were also created, such as the Lyceum-Schools of Arts and Crafts [*Liceus de Artes e Ofícios*], in order to "assist orphans and abandoned children" by providing instruction and initiating their professional lives in industrial occupations.

In the initial Republican period [1889-1930], Vocational Education maintained its welfarist nature aiming at disadvantaged groups, but now it has the additional function of preparing workers for the needs of a still incipient industrial production. A policy on the development of the Industrial, Commercial and Agricultural Education has been consolidated since 1906.

Due to the relevance of this theme, the first decisive moment in government educational policies concerning Vocational Education started in the beginning of the 20th century. In 1910, 19 Schools of Craftsman-Apprentices [*Escolas de Aprendizes Artífices*] were created in various states of Brazil for the "poor and humble" population. With time, they became the embryo of the current Federal Network of Institutions for Technical and Vocational Education at Upper Secondary Level. In the same decade, Agricultural Education was reorganized in order to train "production managers, administrators, and foremen". In addition, workplace-schools were created to train railway workers to meet the growing needs of this sector.

In the 1920s, the House of Representatives discussed the expansion of Vocational Education, by proposing its extension to all and no longer restricted to the poor and "unfortunate". A special committee was created and named as Service to Remodel Vocational and Technical Education. Its work was concluded in ten years after its creation, already during the Second-Republic period after the 1930 Revolution, making way for the reform that was undertaken soon after that.

The second decisive moment was the educational reform of 1931, named after Minister Francisco Campos. This reform regulated and organized Upper Secondary Education, as well as Vocational Commercial Education.

In 1934, a new Constitution delegated the responsibility for the Federal Government of "devising the National Education Guidelines", and of "establishing the National Education Plan". For the first time, in 1937, another Constitution addressed the "vocational and pre-vocational schools" as a "state duty" concerning the "least favored social classes", and this duty was to be fulfilled with the collaboration of companies and economic unions.

The third decisive moment occurred in 1942, when a constitutional mandate established the set of Organic Acts of National Education configuring the so-called Capanema Reform.

- *1942, Leis Orgânicas do Ensino Secundário (Decreto-Lei nº 4.244/1942) e do Ensino Industrial (Decreto-Lei nº 4.073/1942)* [1942, Organic Acts of Upper Secondary Education (Decree-Act 4244 of 1942) and of Industrial Education (Decree-Act 4073 of 1942)];
- *1943, Lei Orgânica do Ensino Comercial (Decreto-Lei nº 6.141/1943)* [1943, Organic Act of Commercial Education (Decree-Act 6141 of 1943)]; *1946, Leis Orgânicas do Ensino Primário (Decreto-Lei nº 8.529/1946), do Ensino Normal (Decreto-Lei nº 8.530/46) e do Ensino Agrícola (Decreto-Lei nº 9.613/1946)* [1946, Organic Acts of Primary Education (Decree-Act 8529 of 1946), of Pedagogical Upper Secondary Education [*Ensino Normal*] (Decree-Act 8530 of 46) and of Agricultural Education (Decree-Act 9613 of 1946)].

In 1942, the Federal Network of Institutions for Industrial Education was created, and the "apprentice" concept was established for labour legislation purposes. According to the Constitution, the collaboration of the companies and economic unions resulted in the establishment of the two national apprenticeship services: the National Industrial Service (SENAI), created in

1942, and the National Commercial Service (SENAC), created in 1946. In the same period, the previous Schools of Craftsman-Apprentices were turned into Federal Technical Schools.

Thus, Vocational Education began to be consolidated in this period due to the emerging needs of industrial economy and urban society – albeit still tied to the welfarist tradition. In the Organic Acts, Upper Secondary Education and Teacher Education were aimed at "training the country's guiding elites", whereas the Vocational Education goal was declaredly to provide "adequate training to the children of industrial workers, to the abandoned and to the less fortunate people with precocious needs to join the workforce". Upper Secondary Education and Teacher Education on one end and Vocational Education on the other did not communicate, nor were they allowed to have any "equivalence system". This did not occur until the following decade.

The fourth decisive moment took place with the legal equivalence between academic and vocational studies, which was established in 1950. It created a bridge between the two types of Education and between the different branches of vocational courses.

Act 1076 of 1950 allowed the former students of vocational courses to pursue higher level studies as long as they could succeed in the exams of the disciplines that they had not formally taken, and as long as they could prove that they "had the indispensable knowledge level to undertake higher level studies". Act 1821 of 1953 had rules for applying this equivalence regime, and it was regulated by Decree 34330 of 1953.

The fourth decisive moment happened a few years later, with the important and remarkable decision of accepting full equivalence among all courses of the same schooling level. It comprehended the enactment of Act 4024 of 1961, the first Act of Guidelines and Bases of National Education. Thus, this act equalized Vocational Education and Academic Education for all intents and purposes.

The fifth decisive moment took place with the enactment of Act 5692/1971, setting the guidelines and bases for the Primary and Upper Secondary Grades, as they were called at the time. This Act established that Educational Training would be mandatory for the Secondary Level (current Upper Secondary Education), supposedly to eliminate the dualism between Academic Training (classic and scientific, preparing students for Higher Education)

and Vocational Training (for Industry, Commerce and Agriculture, aimed at professions), along with Teacher Education (a four-year initial teacher training for teaching the former Primary Education cycle), which was in a steady process of universalization.

Through the Legal Opinion CFE 45 of 1972, the Federal Council of Education regulated Technical and Vocational Education at Upper Secondary Level, establishing the professional licenses and the respective "minimum vocational curricula" that should compose the specific parts of their courses. Thus, these courses offered curricula composed by a number of general subjects, along with the specific vocational disciplines of each area. The starting point for organizing the curriculum of a technical course was, therefore, the formal minimum curriculum that was necessary for the attainment of its respective professional license.

Such indiscriminate and generalized implementation of Vocational Education brought effects that were generally considered as harmful – especially for Public Education – and these effects still reverberate in the present. In this process, the former Upper Secondary Education lost all its identity with the past, both in terms of academic and college preparation studies and in terms of Vocational Training. Act 7044 of 1982 was issued as an attempt to correct this distortion, eliminating the universally mandatory nature of vocational studies and making them optional.

On the other hand, it is important to remember that Act 5692 considered the possibility of Vocational Education through fast-track teaching by offering vocational qualification courses (Chapter IV). Such courses aimed only at professionalization; they were more flexible and paid closer attention to the prerequisites and needs of workers and companies, and some of them were already organized into modules. These were independent Upper Secondary Level courses, which could be completed at different schools and moments, yet always as a way of obtaining a diploma of technician – similarly to what was later generalized by Decree 2208 of 1997 under the terms of the new and current Act of National Education Guidelines and Bases (*Lei de Diretrizes e Bases na Educação Nacional* – LDB).

The sixth decisive moment is represented by the current LDB, Act 9394 of 1996.

The LDB considers the Upper Secondary Level as the final consolidation stage of Basic Education, i.e. as the Education of the student as a person,

deepening the knowledge obtained in the first grades, and as the basic preparation for the world of labour and for citizenship. Among its goals, it is set to secure "a comprehension of scientific and technological foundations for productive processes, and the understanding of links between theory and practice in the teaching of each subject". The LDB also establishes that, at the end of the Upper Secondary Level, the student must demonstrate "understanding of the scientific and technological principles that rule modern production".[4]

The LDB dedicates a special chapter – Chapter III, of Title V – to Vocational Education. The LDB interprets the constitutional provisions as "integrated with distinct forms of Education, Work, Science and Technology", leading the student to the "continuous development of abilities for a productive life".[5] For the LDB, the essence of Vocational Education lies in its specificity, which, at the same time, must be connected to Basic Education. Therefore, Technical and Vocational Education at Upper Secondary Level must articulate itself with Upper Secondary Education.

> Such understanding of Vocational Education by the present LDB is absolutely coherent with the current declarations of the specialized international organizations of the United Nations (UN) System.
>
> In this sense, the United Nations Educational, Scientific and Cultural Organization (UNESCO), in its 2nd International Congress on Technical and Vocational Education, which took place in Seoul, in April 1999, presented its recommendations on "Lifelong Learning and Training: a Bridge to the Future".
>
> Also in a coherent way, the International Labour Organization (ILO) approved its new Human Resources Development Recommendation (195 of 2004), in June 2004, thereby substituting Resolution ILO 150 of 1975, with the following

4. The National Curriculum Guidelines for Upper Secondary Education were created by Resolution CNE/CEB 3 of 1998, based on Legal Opinion CNE/CEB 15 of 1998. In 2005, these guidelines were updated and adjusted to the provisions of Decree 5154 of 2004 through Resolution CNE/CEB 1 of 2005, based on Legal Opinion CNE/ CEB 39 of 2004. The Guidelines were changed once again by Resolution CNE/CEB 4 of 2006, based on Legal Opinion CNE/CEB 38 of 2006, which deals with the inclusion of Philosophy and Sociology study subjects in the Upper Secondary Education curriculum.
5. The National Curriculum Guidelines for Technical and Vocational Education at upper Secondary Level were created by Resolution CNE/CEB 4 of 1999, based on Legal Opinion CNE/CEB 16 of 1999. These guidelines were updated and adjusted to the provisions of Decree 5154 of 2004, by Resolution CNE/CEB of /2005, based on Legal Opinion CNE/CEB 39 of 2004.

> three main streams for joint action by governments, employers and workers in order to guide the development of human resources: Basic Education, Initial Training and Lifelong Learning.[6]

Science and Technology are pointed out as convergent with the goals envisioned both for Upper Secondary Education and Vocational Education, which require a basis of scientific and technological knowledge.

On the other hand, the LDB determines that the Basic Education curriculum should adopt, among its guidelines, a "work-oriented focus"; that Upper Secondary Education should include "basic preparation for work" among its purposes; and that this educational stage, among its guidelines, should provide students with a "general preparation for work".

The Upper Secondary Education is always responsible for achieving these purposes, so that students may develop not only the basic skills that are necessary to each and all learners, but also general and common abilities for work and for understanding the reality of the world of labour, along with the cognitive conditions to make adequate choices regarding his or her future studies.

For the connection between basic and general abilities to be effective, the type of training envisioned by Upper Secondary Education must be placed in a context so that an understanding can be reached on both aspects – of labour and of production of goods and services –, as well as on the connection of Science and Technology with production and with the ongoing economic, technological, legal-institutional, social, and cultural transformations that are happening in the country and in the world. Therefore, there is no dissociation between general preparation for work and general training since both must be provided in an integrated way, in the context of work, and in all curricular components. At this educational stage, these considerations become more relevant if one recalls that there is an increasing number of young and adult learners who are already workers with life and work experiences that provide inputs for reflection, criticism and systematization of the understanding of this constantly changing reality.

---

6. CORDÃO, F. A.; AUR, B. A. *Estrutura e funcionamento atual da educação profissional no Bra*sil, article for the International Centre for Technical and Vocational Education and Training (UNEVOC-UNESCO), to be published in *The International Handbook of Technical and Vocational Education and Training (TVET).*

In short, with a curriculum that organically integrates the common national basis and a section with diverse subjects, Upper Secondary Education must focus on general and basic training in a productive setting and in other social practice contexts. Though it faces the challenge of providing a general/basic preparation for work, it is not up to Upper Secondary Education as a rule to provide specific technical abilities – such challenge belongs to Vocational Education.

If this is the rule, LDB foresees in its article 36, paragraph 2, that both kinds of Education can be present in the same course, as long as "the general training of a student is provided" as envisaged by Upper Secondary Education.

In any form that Vocational Education is presented, it always presupposes that Basic Education is an indispensable condition. The better the quality of Basic Education, the stronger will be the possibility of success of all modalities of Vocational Education programs from the initial grades to post-graduation.

As a result of the decisive moment represented by the current LDB, there have been two important periods in relation to the organization and the form in which Vocational Education is provided: the first was marked by Decree 2208 of 1997, which separated Technical and Vocational Education from Upper Secondary Education; and the second, by Decree 5154 of 2004, which established a free choice between integrated, concomitant or subsequent modalities of Vocational Education.

In the first period, under Decree 2208 of 1997 (abrogated in 2004), Vocational Education was:

- divided into three levels: Basic (non-formal and free), Technical (Secondary Level skill) and technological (Higher Education level);
- no longer a "diversified part" of the Upper Secondary Education curriculum;
- either concomitant or subsequent to the period of Upper Secondary Education.

Based on this Decree, the following was promoted:

> [...] a radical separation between Technical and Vocational Education at Upper Secondary Level and Upper Secondary Education, considering that Technical and Vocational Education could be provided either concomitantly or subsequently to Upper Secondary Education. Still, it should not be integrated as one single course because Vocational

> Education was no longer a diversified part of Upper Secondary Education. This uncompromising position of the Federal Decree 2208 of 1997 produced a fierce opposition, especially from some dominating means in the federal public network of Technical and Technological Education.

Yet, it did produce beneficial effects, along with the fact that it allowed an increase in Technical and Vocational Education at Upper Secondary Level (14,5% from 2003 to 2004, according to preliminary data of the National Institute of Educational Studies and Research Anísio Teixeira – INEP, of the Ministry of Education), accelerating the pace of Vocational Education expansion in the country, which had already increased 12,9% between 2001 and 2003. In the private sector, it increased 20,8%; at the municipal level, there was an increase of 11,9%; at the state level it was 8,6%; and 1,4% at the federal level.

> Other positive consequences refer to the students' profile, which became more vocational and directly focused on professional training, with higher age and lower income. Thus, it provided a more social focus aimed at those who need to work in qualified professions in the various vocational areas without or before attaining Higher Education.[7]

Another aspect to be highlighted is that paragraph 1 of article 4 of Decree 2208 established:

> Federal funded public institutions and non-profit public and private institutions that provide Vocational Education must compulsorily offer basic level of vocational courses among their activities. These courses must be open to students of the public and private networks of Basic Education, as well as to workers with any level of schooling.

This provision made explicit, for the types of schools mentioned, an obligation that was already established by article 42 of LDB: "Technical and Vocational Education schools, along with their regular courses, shall provide special courses to the community. Enrollment in these courses shall be conditioned by learning capacity, and not necessarily by the level of schooling." By doing so, it forced federal, state and municipal public vocational education institutions to diversify their actions, and along with their traditional learners, to almost always accept the adolescents who succeeded in competitive and excluding tests, as well as new students and workers.

---

7. CORDÃO; AUR, op. cit.

In the second period, under the effect of Decree 5154 of 2004, Vocational Education took on the following characteristics:

- It is developed through the provision of courses and programs such as initial and lifelong **inservice training for workers, Technical and Vocational Education at Upper Secondary Level, and Technological Higher Education at graduate and postgraduate levels;**
- The connection with Upper Secondary Education will take place through one of the following forms:
  - **Integrated** (in a course at the same educational institution, through single enrollment by each student with increased hour load);
  - **Concomitant** (at the same or different institutions, with different enrollments, with or without intercomplementarity agreements for the development of unified pedagogical projects);
  - **Subsequent** (after Upper Secondary Education, when its completion is a prerequisite for enrollment).
- It still does not constitute a "diversified section" of the Upper Secondary Education curriculum.

By strengthening the option of taking Upper Secondary Education and technical qualification together in a single course (which is made possible by the paragraph 2 of article 36 of the LDB), Decree 5154 keeps the concomitant and subsequent forms of technical and vocational courses at Upper Secondary Level by adding the possibility of enrolling in different schools and designing their pedagogical projects through intercomplementarity agreements.[8] Thus, under the scope of its autonomy, a school or any of the educational systems must choose from the three forms according to what is more adequate to their proposals or to their political-pedagogical projects.

In accordance with paragraph 2, article 4 of Decree 5154, in the integrated option, the educational institution must "increase the total hour load of the course in order to simultaneously ensure the fulfillment of established goals for the general training and for preparing conditions for the practices of technical professions." In this sense, it is important to observe that:

8. It should be noted that the provisions of Decree 5154 resulted in adjustments in the National Curriculum Guidelines for Upper Secondary Education and for Technical and Vocational Education at upper Secondary Level. These adjustments are expressed in Resolution CNE/CEB 1 of 2005 (based on Legal Opinion CNE/CEB 39 of 2004).

> The development of an integrated articulation requires a new and updated design. It cannot and must not mean a mere return to the form of the abrogated Act 5692 of 1971, which replaced Upper Secondary Education components with technical and vocational ones, thereby impoverishing former Upper Secondary Level of Education. Instead, it means to ensure that Upper Secondary Education can fulfill its mission with a minimum of general training hour load that enables the attainment of the final stage goals. The consolidation of Basic Education, including "basic preparation for the learner's work and citizenship", and the knowledge that allows "the continuation of one's studies" both at Higher Education and at Vocational Education. Developed in articulation with Upper Secondary Education, this allows the citizen to attain professional qualification in the world of labour and within a constantly changing society.[9]

In this second period attention should be drawn to a most relevant initiative: the opportunity for young and adult workers to restart their studies in Upper Secondary Level and Vocational Education courses at federal technological education institutions – a decision that expands the purpose expressed by the abrogated Decree 2208 (paragraph 1, article 4). This initiative was put into effect by Decree 5478 of 2005, which created the Program of Vocational Education Integration with Upper Secondary Education in the Modality of Youth and Adult Education (PROEJA) within federal technological education institutions. PROEJA establishes that these institutions must provide courses and programs in Youth and Adult Education (YAE) modality, both for inservice initial and lifelong training, as well as for integrated courses with Upper Secondary Education. Without a doubt, this will enable increased access to these institutions by workers (or work candidates) with low income and incomplete basic schooling. PROEJA was expanded by Decree 5840 of 2006 to include other institutions along with the federal ones, as well as the integration with Basic Education. The Program has been renamed to National Program of Vocational Education Integration with Basic Education in the modality of Youth and Adult Education (PROEJA).

Decree 5478 was examined by the National Council of Education. Through Legal Opinion CNE/CEB 20 of 2005, the Council included

9. CORDÃO; AUR, op. cit.

Youth and Adult Education as an alternative to the provision of Technical and Vocational Education at Upper Secondary Level integrated with Upper Secondary Education. The Legal Opinion provided a foundation for the issuance of Resolution CEB/CNE 4 of 2005, which includes this modality in the text of Resolution CNE/CEB 1 of 2005. This modality is ruled by the National Curriculum Guidelines for Youth and Adult Education, based on Legal Opinion CNE/CEB 11 of 2000 and created by Resolution CNE/CEB 11 of 2000.

A final observation refers to the practice of *internship*. When provided for Upper Secondary Education or for Technical and Vocation Education at Upper Secondary Level, the legislation and the national guidelines must be followed in order to organize and offer supervised curricular internship for Vocational Education and Upper Secondary Education students, as established by Resolution CNE/CEB 1 of 2004.[10] These guidelines apply both to regular courses and to the modality of Youth and Adult Education.

Based on this survey of the legal and normative documents, and on their analysis, the *doctrinal framework* was produced for the design and implementation of policies to integrate Upper Secondary Education and Vocational Education in the present.

10. One should also take into account the constitutional provision that prohibits the work of minors under the age of 16 (except in the apprentice condition starting at the age of 14). It also prohibits the work of individuals under the age of 18 in activities, places and services listed by article 405 of the Consolidation of Labour Acts (CLT), and in the present regulation of its item II (dangerous or unhealthy places and services) by Administrative Order 20 of 2001 issued by the Secretariat of Work Inspection, Ministry of Labour and Employment.

Doctrinal Framework

After surveying the relevant laws and norms on Vocational Education and Upper Secondary Education, the next step was to identify and analyze the pertinent ministerial documents, as well as non-official documents on the theme. These documents outline the policies for integration of Upper Secondary Education with Technical and Vocational Education at Upper Secondary Level in the *doctrinal framework*.

Ministerial Documents

The documents produced by the Ministry of Education – and identified as more directly pertinent to the study – are the following:

- *Documento-base do Seminário Nacional de Educação Profissional*: concepções, experiências, problemas e propostas (2003) [Basic Document of the National Seminar on Vocational Education: concepts, experiences, problems and proposals];
- *Anais do Seminário Nacional de Educação Profissional*: concepções, experiências, problemas e propostas (2003) [Proceedings of the National Seminar on Vocational Education: Concepts, Experiences, Problems and Proposals];
- *Políticas públicas para a educação profissional e tecnológica*: proposta em discussão (2004) [Public Policies for Vocational and Technological Education: Proposal under discussion];
- *Subsídios para o processo de discussão da proposta de anteprojeto de Lei da Educação Profissional e Tecnológica* (2004) [Inputs for the discussion process of the proposed bill on Vocational and Technological Education];
- *Exposição de motivos do Ministro da Educação ao Presidente da República:* propondo a edição do que veio a ser o Decreto nº 5.154/2006 [Presentation of motives by the Minister of Education to the President of the Republic: proposing the edition that became the Decree 5154 of 2006];
- *Educação profissional como estratégia para o desenvolvimento e a inclusão social*: roteiro para debate nas conferências estaduais preparatórias à Conferência Nacional de Educação Profissional e Tecnológica (2006) [Vocational

education as a strategy for development and social inclusion: a framework for discussion in the preparatory state conferences of the National Conference on Vocational and Technological Education];

- *Conferência Nacional de Educação Profissional e Tecnológica:* Educação profissional como estratégia para o desenvolvimento e a inclusão social; documento-base e propostas das conferências estaduais (2006) [National Conference on Vocational and Technological Education: Vocational Education as a strategy for development and social inclusion; basic document and proposals of the state conferences];
- *Documento-base do Programa Nacional de Integração da Educação Profissional com a Educação Básica na Modalidade de Educação de Jovens e Adultos (PROEJA)*: volume educação profissional técnica de nível médio/ensino médio (2007) [Basic Document of the National Program of Vocational Education Integration with Basic Education in the modality of Youth and Adult Education (PROEJA)].

In 2004, the Secretariat of Basic Education (SEB/MEC) issued a set of texts on curriculum guidelines for this stage of Education, to be debated in regional and national meetings.[11] The work resulted in the three-volume publication of the *Curricular Guidelines for Upper Secondary Education*[12], in which the modality of Upper Secondary Education integrated with Technical and Vocational Education is mentioned only in passing. Thus, it no longer encouraged the provision of mandatory general/basic preparation for work, which should take place throughout Upper Secondary Education, and not only when it is integrated with Vocational Education.

The concept of integration between Upper Secondary Education and Technical and Vocational Education at Upper Secondary Level into a single course has been envisaged since the first of the above-listed documents, and is based on the doctrinal foundations of unified Education (complete educational training process both General and Vocational curricula with a view to overcoming school duality) and Polytechnic or Technological Education.

---

11. BRASIL. Ministério da Educação. *Orientações curriculares do ensino médio:* textos para discussão em seminários regionais e no seminário nacional. Brasilia: Ministério da Educação, Secretaria de Educação Básica, Departamento de Políticas de Ensino Médio, 2004.
12. BRASIL. Ministério da Educação. *Orientações curriculares para o ensino médio.* Brasilia: Ministério da Educação, Secretaria de Educação Básica, Departamento de Políticas do Ensino Médio, 2006. (Volume 1: Linguagem, Códigos e suas tecnologias; Volume 2: Ciências da Natureza, Matemática e suas tecnologias; Volume 3: Ciências Humanas e suas tecnologias).

Among the specific preconditions of Vocational Education, the basic document of the National Seminar on Vocational Education: Concepts, Experiences, Problems and Proposals highlights the task of linking this type of training "with Basic Education that has humanist, scientific, technological, or polytechnic characteristics aligned with the prerequisites of the complete educational training process of the human being". At the same time, it defends:

> […] a unified school, which contributes to overcoming the unequal social structure of Brazilian society by reorganizing the educational system. And one which may point to a definitive leap beyond the concept that separates the general, college-prep type of Education from the specific and vocational type – the former, aimed at the rich, and the latter, at the poor. The perspective of a unified school does not allow the educational policy to be subordinate to economicism[13] and to the determinations of the market, which reduce it to a situation of training for temporary jobs. Vocational Education – guaranteed to workers as a right – cannot be understood as a substitute for Basic Education.

The text proposes to recover the normative power of LDB in relation to Upper Secondary Education and Vocational Education based on a careful evaluation of the subsequent legal instruments,[14] bearing in mind "alternatives that are coherent with a project on the expansion of Basic Education and Vocational Education that is public, free of charge and has the social quality, which is needed by the country's youth and adult population". Regarding the Polytechnic Training, it proposes to "provide Vocational Education to youth that may lead them to master the different modalities of knowledge and practices required by their productive activities, to understand the economical and political reality and work relations, and to take an active part in social life".

In the document *Políticas públicas para a educação profissional e tecnológica: proposta em discussão*, of 2004, once again the discussed questions were raised and consolidated in the national seminar that had taken place in the previous year. It should be noted that the text formally refers to the modality as "Vocational and Technological Education" (and not only Vocational Education). Right in the beginning of the document, it indicates that:

---

13. A criterion or doctrine that grants the economic factors primacy on those of any other nature.
14. Without a doubt, and above all, it was aimed at evaluating and revising Decree 2208 of 1997, which separated Upper Secondary Education from Technical and Vocational Education at upper Secondary Level.

> […] Vocational and Technological Education must be conceived as a process of social construction that may, at the same time, train the citizen and educate him or her on scientific, ethical and political bases, for an understanding of technology as a product of the social being that establishes social, historical and cultural relations of power.

Further on, presupposing the integrated course format, it indicates that the goal that must guide the organization of Vocational and Technological Education, regarding Upper Secondary Education, is to provide students with knowledge mastery of scientific foundations in different techniques that are part of production, and not only to provide a mere drill on productive techniques.

On the other hand, the document summarizes the conception of the first Bill on Guidelines and Bases (LDB), presented in 1988 to the House of Representatives, when Upper Secondary Education "started to gain a new frame of doctrinal contents, in an attempt to move toward its fundamental role of recovering the relation between knowledge and work practice". In this bill, such educational level is aimed at "polytechnic training necessary for theoretical and practical comprehension of the scientific foundations of the manifold techniques employed in the productive process".

In 2004, the document *Subsídios para o processo de discussão da proposta de anteprojeto de Lei da Educação Profissional e Tecnológica* addressed again the considerations of the previous documents. According to what the document states, Vocational and Technological Education is:

> […] conceived as a process of social construction that may, at the same time, qualify the citizen and educate him or her on technical and scientific, ethical and political bases, so that he or she can understand technology as the production of a social being that establishes social, historical and cultural relations, with the goal of becoming an agent of social transformation.[15]

15. In a first moment, this bill was called "Organic act of vocational and technological education". In spite of having been proposed and discussed in regional meetings, it has not moved forward. There are experts that consider the proposal of an "organic act" on Vocational Education an expression of a dualistic trend: "In view of the defense of a national educational system that congregates Basic Integrated Education with quality for all and Higher Education in which education, research and extension are inseparable from the perspective of knowledge production and socialization in the country and for the country, and of intellectual development of its citizens, a measure in this direction would represent a historical setback and a political failure (FRIGOTTO; CIAVATTA; RAMOS, 2005).

In a certain way, the text seeks to clarify the importance of adding the word "technological" to the word "vocational":

> Vocational Education alone is not enough, as modern social capital itself admits that workers must have access to culture in all its forms, and, therefore, to Basic Education. Thus, Vocational Education attains the contours of Technological Education, which tends to progressively transform itself, allowing the incorporation of general scientific principles that have an impact on the productive process; basic instrumental skills that include different forms of specific languages, involving distinct social and productive activities; categories of analysis that facilitate the historical and critical grasp of society and of the human beings' activities as citizens and workers; the instrumental capacity to effectively think, study, create and direct, establishing the necessary forms of control.

Next, it moves from the need for Technological Education in Upper Secondary Education to the need for a course of complete educational training process, by adding:

> [...] it is compulsory to explore the possible elements offered by the LDB, particularly in its articles 39 to 42, by attempting to progressively integrate Vocational and Technological Education into Basic and Secondary Education in order to meet the demands not only of the world of labour, but also of the society in which we live.

According to the text, Technological Education is based on:

> [...] the comprehension of the scientific, technological, social, economic, cultural, and work foundations, leading to integral Technical and Vocational Training, linking theory and practice, stimulating the development of a spirit of critique, creativity and citizenship, which are crucial for students to perform their role as agents of social transformation.

Regarding the Technical and Vocational Education curricula at Upper Secondary Level, the document indicates that:

> [...] they will be organized observing the integration between scientific, technological, social and humanistic forms of knowledge, which will make up the core general and universal knowledge, along with the specific core knowledge and skills, which will be based on the transformations of work and production activities themselves.

The document *Exposição de motivos do Ministro da Educação ao Presidente da República: propondo a edição do que veio a ser o Decreto nº 5.154/2006* explicitly states the goal of allowing and favoring the integration of Upper Secondary Education with Vocational Education into a single course, which had been denied by Decree 2208.

The Minister's text refers to article 40 of LDB, which establishes that "Vocational Education will be developed in articulation with regular Education or through different strategies of Lifelong Education". It continues:

> In the case of Upper Secondary Education as the final stage of Basic Education in Brazil, this articulation reaches a higher specificity. It is made evident by article 36, paragraph 2, which states that "once the general training of the student is attained, Upper Secondary Education may prepare him or her for the practice of technical professions". In this case, the articulation may reach a maximum degree, enabling effective "integration" through which Vocational Education and regular Education complement each other, thus becoming a whole.

The text defends that:

> the development of vocational qualification in the Upper Secondary Education is a legally admitted and necessary possibility for the Brazilian youth. General Education must be ensured according to the objectives listed in the article 35 and the curriculum principles referred in article 36.

Although it also includes provisions on other details, the proposed decree has a main target, namely to establish that "articulation between Technical and Vocational Education at Upper Secondary Level and Upper Secondary Education may take place in an integrated way at the same educational institution", maintaining – or, better said, admitting – the pre-existing concomitant and subsequent forms (previously called "sequential"). This is what the text establishes when it concludes that the proposed measures "are summed up in the arrangements on the provision of Vocational Education, especially of technical training in Upper Secondary Education, and in the abrogation of Decree 2208 of 1997".

The edition of Decree 5154 of 2004 was based on the ministerial proposal. By establishing the integrated form, it strengthened the possibility of Upper Secondary Education and Vocational Education being provided in a single course.

Complements to these purposes and others were expressed in the previously analyzed documents and re-affirmed in the *Roteiro para debate nas conferências estaduais preparatórias* [Script for debate at the preparatory state conferences] and in the *Documento-base e propostas das conferências estaduais* [Basic document and proposals of the state conferences], respectively created to guide the preparatory events in the states and the works of the National Conference of Vocational and Technological Education: Vocational Education as a Strategy for Development and Social Inclusion that took place in 2006.

In line with these two documents, the integrated modality was presented on several opportunities during the National Conference as the most appropriate from the pedagogical and operational standpoints. The final plenary approved proposals to promote the integrated alternative overriding proposals for its provision not to be prevalent or exclusive.

The publication *Documento-base do Programa Nacional de Integração da Educação Profissional com a Educação Básica na Modalidade de Educação de Jovens e Adultos (PROEJA)*: *volume educação profissional técnica de nível médio/ ensino médio* (2007) in its volume on Technical and Vocational Education at Upper Secondary Level entitled *Educação professional técnica de nível médio/ ensino médio* reflects the concern found in all previous documents: to enable to raise the schooling level alongside Vocational Training of youth and adults by integrating both forms of Education in specific courses and programs of Vocational Education connected to Upper Secondary Education.[16]

The volume provides guidelines for the implementation of PROEJA courses and programs of Technical and Vocational Education at Upper Secondary Level articulated with Upper Secondary Education in an integrated or concomitant way, but in all cases based on previous construction of an integrated and single pedagogical project. This is what can be seen in the following excerpt, which highlights integrated provision in a single course:

> The policy of integrating Vocational Education and regular Upper Secondary Education in the modality of Youth and Adult Education, specifically considered in this document as the integration between Upper Secondary Education and

16. A second volume on "Initial and continuous training/basic-level education" provides guidelines for the implementation of PROEJA in this first level of teaching. Another volume, "Basic Document", provides guidelines for implementation of PROEJA in vocational and technological education integrated with the school education of indigenous peoples.

> Technical and Vocational Education at Upper Secondary Level [...]. It operates as a priority from the perspective of an integrated political-pedagogical project, in spite of being possible to offer courses of Technical and Vocational Education linked with Upper Secondary Education in other forms – integrated, concomitant and subsequent (Decree 5154 of 2004); and in spite of the fact that Decree 5840 of 2006 specifically envisions for PROEJA the possibilities of articulation considering the integrated and concomitant forms. In the search for making integration a priority, the strongest efforts lie in the attempt to characterize the integrated form, which expresses itself by means of an integrated curriculum.

All the documents of the Ministry of Education that are more pertinent to this study, written under the aegis of the Secretariat of Vocational and Technological Education (SETEC) coherently have the same *leitmotiv*: the preferential option for integrating Upper Secondary Education with Technical and Vocational Education at Upper Secondary Level into a single course, based on the notion of unified Education (complete General Education, as well as Technical and Vocational Education, from the perspective of overcoming school duality), and of Polytechnic or Technological Education, "necessary to the theoretical and practical comprehension of the scientific foundations of the manifold techniques used in the productive process".

Unofficial Documents

There is a vast bibliography available on the theme. The unofficial documents and publications[17] below are only a sample. They are selected according to entirely personal criteria by the author, inasmuch as they have been considered directly significant for the pertinent approaches:

- IIEP. *A qualificação profissional como política pública*: sugestões para o novo governo. Santo André, SP: Intercâmbio, Informações, Estudos e Pesquisas (IIEP), 2002.

17. Some of the listed works have been published in partnership with MEC or by the Ministry itself, but they do not have an official character for they do not represent governmental declarations or guidelines, even though they may have guided the decisions included in the publications.

- ABRAMOVAY, M.; CASTRO, M. G. *Ensino médio:* múltiplas vozes [Upper Secondary Education: multiple voices]. Brasilia: UNESCO, 2003.
- FRIGOTTO; CIAVATTA (Orgs.). *Ensino médio:* ciência, cultura e trabalho [Upper Secondary Education: science, culture and work], 2004.
- ZIBAS. A reforma do ensino médio nos anos de 1990: o parto da montanha e as novas perspectivas [The reform of upper Secondary Education in the 1990s: the mountain fable and the new perspectives]. In: ZIBAS. *Ensino médio e ensino técnico no Brasil e em Portugal,* 2005.
- ZIBAS. Breves anotações sobre a história do ensino médio no Brasil e a reforma dos anos de 1990 [Brief notes on the history of upper Secondary Education in Brazil and the reform of the 1990s]. In: ZIBAS. *Ensino médio e ensino técnico no Brasil e em Portugal,* 2005.
- CORDÃO. A educação profissional no Brasil [Vocational education in Brazil]. In: ZIBAS. *Ensino médio e ensino técnico no Brasil e em Portugal,* 2005.
- FRIGOTTO; CIAVATTA; RAMOS. A gênese do Decreto nº. 5.154/2004: um debate no contexto controverso da democracia restrita [The genesis of Decree 5154/2004: a debate in the controversial context of restricted democracy]. In: FRIGOTTO; CIAVATTA; RAMOS. *Ensino médio integrado: concepção e contradições,* 2005.
- BRASIL. Ministério da Educação. *Ensino médio integrado à educação profissional:* integrar para quê? [Upper Secondary Education integrated to vocational education: what is integration for?] Brasilia: MEC, 2006.

The document on Vocational Training as a governmental policy entitled *A qualificação profissional como política pública* was produced at a workshop that took place in the city of Santo André, state of São Paulo, Brazil, in December 2002, organized by the Secretariat of Education and Vocational Training of the City Hall of Santo André, by the Education School of the University of São Paulo (FEUSP), and by Intercâmbio, Informações, Estudos e Pesquisas (IIEP). It can be considered as the first systemic milestone in the review of educational policies aimed at Vocational Education. The workshop took place even before the new federal administration coming into office as a counterpoint to the policies adopted by the previous administration mostly represented by Decree 2208. It is also relevant because some of the participants of this work joined the Ministry of Education staff

collaborators in the new government influencing many of its decisions, especially regarding the integration of Upper Secondary Education with Vocational Education into a single course.

In this text, one finds the embryo, fertilized by the conception of many experts, of what later became MEC's official policy for Vocational Education. Among some assumptions for the design of Vocational Training government policies aimed at working with youth and adults, the document highlights the assurance of "integration of Vocational Training in its various modalities of Formal and Informal Education to *the National Educational System*". The guideline of the previous government was criticized for having strengthened the duality of systems: "Contrary to the defined goals, the act reaffirms the contrast between general training and technical training, thus obstructing the construction of a broad Polytechnic Education in tune with the requirements of citizenship". Further ahead, the text states:

> Substantial changes have been introduced in the National Educational System by Decree 2208 of 1997, which de-schooled Technical and Vocational Education, separating it from Upper Secondary Education, and creating the "vocational education system" and reintroducing into the National Educational System the criticized duality of general Education and Vocational Education.

The first of the recommendations of this document is the following:

> Vocational training must be integrated with Basic Education and Upper Secondary Education in such way as to complement it, and never to substitute it. The design of public government policies in this area must take into consideration the present situation of the Brazilian youth and adult workers, since their majority show low levels of school performance and formal schooling.

Another recommendation refers to strengthening the state and federal technical and vocational schools, "promoting curriculum reformulation for the establishment of complete educational process and the use of existing physical structures, through the practice of participative management".

The research *Ensino médio: múltiplas vozes* (ABRAMOVAY; CASTRO, 2003), whose goal was to collect inputs to guide the actions of the federal and state governments aimed at reforming Upper Secondary Education, was also aimed at reaching a deeper understanding of the several social actors

who coexist in the school: what they do, what they think of and what are their perspectives in relation to the construction of a Secondary Level school ("School for Youth"). The study presents a large amount of data and inputs stemming from a grasp of the "internal" view of the Secondary Level school. As to the perception of the students on the aims of this school level, the research indicates that more than 50% of the students of public schools, and 75% of the students of private schools consider that Upper Secondary Education is meant, in the first place, to "prepare for *vestibular*" (the college entrance exam) – an opinion shared by both the ones who attend day and evening classes, though less frequently among the evening students. Secondly, "to pursue a better future (necessary and useful contents for their future)" – a perception that is more frequent among the day-shift students of public schools. Thirdly, "to prepare for the world of labour (to find a job)" – an alternative mentioned by nearly twice as many students of public schools, and especially among them were the night-shift students.

The publication *Ensino médio: ciência, cultura e trabalho* (FRIGOTTO; CIAVATTA, 2004) is a collection of texts that emerged from preparatory workshops for the National Seminar on Upper Secondary Education: Political Construction, which took place in 2003. The texts reflect researches and studies and seek to contribute to the national construction and coordination of the Upper Secondary Education policy. The collection discusses a proposal for unified Education which articulates work, Science and Culture, work being understood as the educational principle in the sense of a Polytechnic Orientation or Technological Education.

The publication editors highlight that the school model standardized by the federal legislation is dualistic, as it offers on the one hand a preparatory Education aimed at access to the higher levels of Education, and on the other, Vocational Training for the job market. They point out that the link between Upper Secondary and Technical and Vocational Education was broken, and that the most current and emerging focus of the discussion should be Technological Education,

> [...] able to retake the principles of unified school or basic (primary and secondary) Education; that is public, unpaid and universalized, as well as of Polytechnic Education, which combines work, science and culture in its practice and in its scientific-technological and historical-social foundations.

The article *Reforma do ensino médio nos anos de 1990: o parto da montanha e as novas perspectivas*, from the collection *Ensino médio e ensino técnico no Brasil e em Portugal* (ZIBAS, 2005), though indirectly relevant for the present study, is important for the formulation of a critical view on the 1998 reform of Upper Secondary Education. This reform was at the time known as "Youth School" (*Escola Jovem*). From the academic contributions of several researchers, the author outlines a broad overview and indicates concepts to be recovered. The first is the concept of "School of Youth" (*Escola de Jovens*, which highlights the possessive preposition "of" – "de" in Portuguese) – concerns the difficulties of defining a concept of youth in social and cultural aspects. Another principle to be recovered is the context analysis, and additionally its interdisciplinarity, with the curricula organized by areas of knowledge, both deserving discussion and better conceptual definition. The author also addresses the "model of competencies" – which was broadly criticized by the authors of other documents and by MEC itself – considering that this concept must be recovered from a new perspective. The promotion of active learning methods is another aspect to be reestablished. Although the article does not address the provision of Vocational Training at the Secondary Level, it points to the danger of maintaining an educational system that is irremediably split between the school of the middle class and the school of the poor.

In *Breves anotações sobre a história do ensino médio no Brasil e a reforma dos anos de 1990*, an article in the same collection, the author wrote that LDB has minimized work as an educational principle and a guideline of the entire curriculum. The vague wording of the LDB allowed Decree 2208 to determine that Technical and Vocational Education would be provided separately from Upper Secondary Education, a measure that generated almost unsurpassable difficulties for workers who are also studying.

A risk exists of presenting the curricula of two juxtaposed concomitant courses as integrated, which can be clearly seen in one of the cases, resulting in an extended activity hours, with excessive number of disciplines and a heavy hour load. It affected the students' motivation and lead them to drop out of the course. The article on Vocational Education in Brazil entitled *A educação profissional no Brasil*, also part of the same collection, presents an overview of this educational modality in the country. It is based on the LDB, keeping in mind that the LDB conceives Vocational Education as "integrated with different forms of Education, with work, with Science and with

Technology". It is aimed at "permanent development of abilities for productive life". After addressing the National Education Plan, approved by Act 10172 of 2001, the article examines the National Curriculum Guidelines for Technical and Vocational Education at Upper Secondary Level, focusing on the priority of Basic Education, which must be secured to all in terms of "basic preparation for work and for citizenship".

Then, the author develops an interpretation of Legal Opinion CNE/CEB 39 of 2004,[18] which deals with the application of Decree 5154 of 2004 to Technical and Vocational Education at Upper Secondary Level and to Upper Secondary Education. She also notes that the Legal Opinion mentioned above highlights the demand for a "new and current concept" for the recently admitted integrated course, which:

> [...] cannot and must not be understood as a course that represents the total sum of the two distinct, yet complementary courses, which may be developed in a bipolar way, that is part General Education and part Vocational Education. Such was the logic abrogated in Act 5692 of 1971. This is not the logic of the current LDB, neither is the logic of Act 9394 of1996, nor of Decree 5154 of 2004. They reject this dichotomy between theory and practice, between knowledge and its applications.

The author of the Legal Opinion indicates the concept of integration that suggests the provision of Technical and Vocational Education at Upper Secondary Level simultaneous with and during Upper Secondary Education. She also notes that this integration and simultaneity can be part of both regular Upper Secondary Education and Youth and Adult Education. She concludes the article emphasizing that the interpretation of Vocational Education in LDB is coherent with the positions of the United Nations System agencies (UN), especially the International Labour Organization (ILO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

---

18. The author was the responsible for drafting the Legal Opinion in the Chamber of Basic Education (CEB) of the National Council of Education (CNE), and also for drafting the Legal Opinion CNE/CEB 16 of 1999 and the Resolution CNE/CEB 4 of 1999. The two last mentioned instruments institutionalized the National Curriculum Guidelines for Secondary Level Vocational Education. The author also drafted the Resolution CNE/CEB 1 of 2005, which updated the National Curriculum Guidelines for Upper Secondary Education and for Technical and Vocational Education at upper Secondary Level, agreeing to the provisions of Decree 5154 of 2004.

The article *A gênese do Decreto nº 5.154/2004: um debate no contexto controverso da democracia restrita* analyzes the abrogation process of Decree 2208 of 1997 and the construction of Decree 5154 of 2004. It presents a comprehensive synthesis of the doctrinal dispute involved in the integration of Upper Secondary Education and Vocational Education. The text refers to the abrogation of Decree 2208 as a specific and emblematic expression of a theoretical struggle in terms of political and pedagogical pertinence of this integration. Its authors collaborated with MEC in the formulation of policies for Upper Secondary Education and for Vocational Education starting in 2003.

The text refers to the 1987 National Constitutional Congress, when civil society, through its educational and scientific institutions, was mobilized for the incorporation of the right to public, secular, democratic and free-of-charge Education in the Constitution.

> Regarding Basic Education, it defended unified treatment ranging from Early Childhood Education to Upper Secondary Level Education. The theoretical discussion within the educational community, especially among those who investigated the relationship between work and Education, advocated the necessary link between Education and social practice, and saw work as an educational principle. If knowledge has a relative autonomy vis-à-vis the work process from which it originates, the role of Upper Secondary Education should be that of recovering the relationship between knowledge and the practice of work. This would mean to clarify how Science converts itself into a concrete force in the production process. Thus, its horizon should be to allow students to grasp the foundations and the diversified techniques used in production, and not a mere drill in productive techniques. Therefore, it should not be proposed that Upper Secondary Education would qualify specialized technicians, but rather polytechnicians.[19]

"The ideas around a polytechnic orientation have sought to break with the dichotomy between Basic Education and Vocational Education, recovering the principle of human Education in its totality in epistemological

19. Quoting Dermeval Saviani: "The polytechnic concept refers to the realm of the scientific foundations of the different techniques that characterize the modern process of productive work. It is related to the foundations of the different modalities of work, and it is based on certain principles, that is, on certain foundations that must be secured by Polytechnic Education. Why? Because it is assumed that by mastering these foundations or these principles, workers will be able to develop the different modalities of work, grasping their characters and their essences".

and pedagogical terms". It is the defense of a type of Education that can integrate Science, Culture, Humanism and Technology, aiming at the development of the entire scope of human potential.

> From this perspective, the vocational goal would neither be an end in itself, nor would it be conditioned by the interests of the market. Instead, it would become an additional possibility for students in the construction of their life projects, which would be socially determined and made feasible by a broad and comprehensive type of Education.

The LDB project presented to the House of Representatives in 1988 incorporated the core demands of progressive educators, including those referring to Upper Secondary Education. However, during its approval process in the Congress, the first draft approved by the Commission of Education of the House of Representatives underwent several changes, and the approved LDB was a result from a subsequent amendment in the Senate, which intended to only restore the reference to the articulation and integration between Technical and Vocational Education at Upper Secondary Level and Upper Secondary Education partially. Only the provision of paragraph 2, article 36 of LDB ("once General Education of the student is attained, Upper Secondary Education may prepare him or her for the exercise of technical professions") was left in the text.

> What was sought in the LDB project approved by the Commission of Education of the House of Representatives is what Decree 5154 of 2004 is attempting to recover [...], namely the consolidation of the unified basis of Upper Secondary Education that is able to encompass the particular diversity of the Brazilian reality, including the possibility of expanding its objectives, for instance with a specific type of training for the exercise of technical professions.

For the authors of the article, it is an ethical and political obligation to ensure that Upper Secondary Education is developed on a unified basis for all. "Therefore, to have Upper Secondary Education integrated with Vocational Education upon the unified basis of General Education is an indispensable condition for the 'transition' towards a new reality", which had been obstructed by Decree 2208. Therefore, the goal of Decree 5154 is:

> [...] to re-establish a new starting point for this transition in such way that the goal of Upper Secondary Education becomes the consolidation of a basic unified and polytechnic

> education, with a central focus on work, Science and Culture, in dialogue with the specific Vocational Training that is consolidated at other levels and modalities of Education.

By mentioning Dermeval Saviani, the authors consider that the integrated modality:

> [...] is a socially and historically necessary condition for the construction of a unified and polytechnic Upper Secondary Education, but they cannot be totally interchangeable, realistically. Notwithstanding, since it contains elements of polytechnic education, it also contains the seeds of its construction.

They adopt as a premise that Upper Secondary Education can be "technological", but not "polytechnic". And they reaffirm that the integration was made possible by Decree 5154:

> [... integration] is a necessity to the present social and historical context, so that Technological Education may become effective for the sons and daughters of workers. Due to these concrete determinations, the possibility of integrating general training and Vocational Education in Upper Secondary Education – aiming at the complete Education process of the human being – is the necessary condition for the transition towards Upper Secondary Polytechnic Education, towards overcoming educational duality, and towards overcoming duality of classes.

The publication *Ensino médio integrado à educação profissional: integrar para quê?* is a collection organized by the Basic Education Secretariat of the Ministry of Education (SEB/MEC), with contributions by consultants who have worked with the State Secretariats of Education in the process of creating and implementing Integrated Upper Secondary Education with the support of SEB/MEC.

After a foreword written by SEB/MEC on Upper Secondary Education as an alternative to Inclusive Education, the publication presents thoughts and proposals on an integrated course: proposals of teaching actions; local and regional development and Integrated Upper Secondary Education; Education and work in the reintegration of curricula; multiculturalist praxis and local development as contributions to the organization of curricula; meanings and practices of the implementation plan; and interdisciplinarity

as a guiding axis for this type of Education. The texts present theoretical foundations, but they focus on the actual implementation of the integrated course based on the provisions of Decree 5154.

It should be noted that the abovementioned documents and publications were selected according to the author's personal criteria regarding the most pertinent themes for this study. Some of them do not focus on the antagonism between the concepts underlying Decrees 2208 and 2154; others do, opposing the former and favoring the latter, in tune with the ministerial positions in terms of advocating the integration between Upper Secondary Education and Vocational Education based on the notions of "Unified Education" and "Polytechnic or Technological Education".

Case Studies

The study of these two cases on the implementation of integrated Vocational Education and Upper Secondary Education courses in 2007 was aimed at identifying the *actual level* of understanding and execution of these policies. Santa Catarina and Tocantins were the two states focused in the study with the acceptance and agreement of their respective State Government Education Secretariats.

Among other topics, the survey questionnaire forms initially included issues related to funding, curriculum, infrastructure and educational personnel, as well as to the connection between the State Government Education Secretariats and MEC's Vocational and Technological Education Secretariat and Basic Education Secretariat.

The questionnaires were previously sent out to be answered by:

- The Secretary of Education or a substitute staff member;
- The person in charge of Upper Secondary Education;
- The person in charge of Vocational Education;
- The person in charge of implementing the integrated course strategy at the central level (if existent);
- The school director who adopted the integrated course modality;
- The school pedagogical coordinator or equivalent (if existent).

In each state, visits were made to the office of the State Government Education Secretariat and to a school that implemented the integrated modality. During the school visits, the data obtained by the questionnaire replies were complemented by interviews with their principals and pedagogical coordinators for a better understanding of some significant aspects. Additional interviews included teachers of General Education and Vocational Education, and at least one student.

Santa Catarina State

The data and the analysis of the first case refer to the Santa Catarina State Government Education Secretariat (*Secretaria de Estado de Educação de Santa Catarina* – SED-SC), to its headquarters, and to one of the schools of its network that implemented and developed Upper Secondary Education integrated with Vocational Education.

The Education Secretariat

SED-SC promoted the implementation of Upper Secondary Education integrated with Vocational Education in 2006. It had the cooperation of the Ministry of Education through its Basic Education Secretariat (MEC/SEB).

The forms were filled in at the SED-SC headquarters by the State Secretary and by the individuals in charge of Upper Secondary Education and Vocational Education, as well as by the specific coordinators appointed for the integrated courses. These questionnaires presented an almost standardized set of data with slight variations. From the data provided, it was possible to identify that the decision to provide this type of course occurred through a process that began in 2004, relying on the assistance of four national and two state consultants.

> In 2005 and 2006, the creation, revision, and discussion of curricula took place during the inservice training courses for managers and teachers of the schools involved, together with the technical staff responsible for integrating Basic Education and Vocational Education in the Offices of Education, Science and Technology (GEECT) of the State Government Regional Education Secretariats.[20] The operational activities were undertaken through the organization of eight seminars, held from October 2005 to September 2006, totaling 152 hours of classroom training.

The working proposal – certainly motivated by MEC – was therefore associated to the initiative of the Education Secretariat itself.

> At the beginning of the process there was the political will of the Secretary of Education and of the Upper Secondary

20. The state of Santa Catarina is divided into thirty administrative regions, each one with its own State Government Regional Secretariat. Each Regional Secretariat includes an Office of Education, Science and Technology (GEECT), with managers and technical staff in the field of Education. In each GEECT there is a Supervision of Basic and Vocational Education, responsible for monitoring the work of the integrated courses.

Education manager sponsored by MEC. They relied on the openness of society and on the willingness of educators in the majority of the schools to invest in an innovative proposal.

Other factors reinforced the initiative, such as the decision to take gradual steps in terms of implementation, bearing in mind the effective conditions of the schools; MEC/SEB's support with financial and technical resources; direct follow-up and assistance to the schools; provision of inservice teacher training for the promotion of theoretical discussion and support to the restructuring of pedagogical projects.

The questionnaire replies from the directors and technical staff at SED-SC headquarters highlighted MEC's cooperation, which, from a technical standpoint, encompassed the courses' curricular planning, capacity building for technical staff, capacity building for teachers, and organization of technical meetings. During these meetings, MEC consultants were able to conduct deeper discussions about changes in the world of labour and Upper Secondary Education, as well as foundations of Education and work and in the curriculum for Integrated Upper Secondary Education. On the financial aspect, this cooperation included the payment of consultancy work, construction of labs and purchase of equipment, books, and pedagogical material. It reached almost 99% of the resources employed (of which 12.5% originated from MEC's budget, and 87.5% from the FNDE-PROMED[21]). The state's direct share was slightly above 1%. Obviously, the sum indirectly spent by SED-SC was way beyond this percentage, as it has included all the current expenses linked to the maintenance of the schools that implemented integrated courses, and of the activities of these courses.

The process involved local, regional and state levels, and it was developed in several stages:

- Adherence of SED-SC to the project and the provision of Upper Secondary Education integrated to Vocational Education (EMIEP) by the Federal Government;
- Production of the guidelines for the state's public educational network;

21. The National Fund for the Development of Education (FNDE) is an autarchic office of the Ministry of Education with the mission of providing resources and executing actions for the development of Education. It has sustained the Program for the Improvement and Expansion of Secondary Education (PROMED), which is aimed at enhancing the quality and the efficiency of Upper Secondary Education, expanding its coverage and assuring a stronger social equality.

- Creation of a specific coordination for the integrated courses, linked both to the Office of Upper Secondary Education (GEREM) and to the Office of Vocational Education (GEREP) at SED-SC;
- Creation of a supervision of Basic Education and Vocational Education in each SED-SC Regional Office;
- Identification of regional Vocational Training needs and demands (undertaken by managers of the educational system and by the schools);
- Data survey on the levels of local and regional development, and on their relationship with regional, state and national development;
- Discussion forum with the respective Council of Regional Development, in order to define social and economic priorities that could foster potential activities for the region;
- Definition of partnerships;
- Adherence by school units to the project and definition of Vocational Training areas and courses;
- Production of pedagogical projects, integrating Upper Secondary Education and Vocational Education;
- Negotiation of the definition of curricula along with the State Council of Education.

The document *Ensino médio integrado à educação profissional: diretrizes para a rede pública estadual de ensino* defined the guidelines for structuring and implementing integrated courses. In sum, it established that, during the first year, each one of the 29 regional offices of the countryside and of the coast of the state should implement a course with one or two classes, depending on the demand in relation to the productive world, and observing the following criteria, among others:

- It should be a public Upper Secondary Education school unit;
- It should not provide other options of Vocational Education, either in the subsequent or in the concomitant form, and should not provide pre-service and inservice Education for workers;
- It should have an adequate infrastructure for Upper Secondary Education (library with an appropriate collection for this educational level along with Chemistry, Physics, Biology, and Computer labs);
- It should have an effective staff of Higher Education level teachers;
- It should present a capacity building plan for the teachers.

The effective implementation was subject to the technical and financial feasibility of the state government.

Due to this financial and technical feasibility, SED-SC decided to create a single course in one school of each Office of Education, Science and Technology (GEECT) of the 30 State Government's Regional Secretariats. Excluding the Regional Secretariat of Florianópolis, it resulted in 29 schools with one or two classes organized in each school. The schools adhered voluntarily to the project.

The selection of technical and vocational courses at Upper Secondary Level to be implemented was based both on the researches of the state government's Secretariat of Regional Development and of the GEECT of the respective Regional Secretariat, and on the indications of the schools and demands of the local productive sectors. This selection was conducted during regional meetings, always relying on the support of SED-SC. It encompassed the following vocational areas: Tourism and Hospitality; Computer Science; Civil Construction; Agriculture and Livestock; Management; Health; Industry; Chemistry; Personal Image.[22]

Each school created its own course plan, with the participation and approval of the managers and teachers involved, advised by technical staff of the Secretariat's offices of Upper Secondary Education and Vocational Education, by two local consultants hired by SED-SC, and by four national consultants hired by MEC. The design, discussion and revision of the course plans took place during the capacity building activities of managers and teachers from the units involved, and they were led by the above-mentioned consultants.

According to the coordination of SED-SC,

> [...] it could be considered that there were many common points, especially in the conceptual and methodological dimensions. With these theoretical and methodological assumptions, the schools produced the curricula according to the specific course. From then on, each school planned its own administrative and pedagogical management.

22. The courses of Upper Secondary Level Technical Vocational Education have been offered by the Secretariat in the following ways: *integrated,* in the regular modality; *concomitant,* to the students who attend Upper Secondary Education; and *subsequent,* to the students who have already completed Upper Secondary Education. The concomitant and subsequent modalities have been offered in the specific state network, comprising 22 Vocational Education Nuclei (NEP) and 15 Vocational Education Centers (CEDUP) – 10 of them with industrial and commercial courses (concomitant and subsequent) and 5 of them with agricultural courses (concomitant with Upper Secondary Education, in a boarding-school system).

It is important to note that SED-SC also offered Secondary Education courses both in the regular format and in the YAE modality. There was a common curriculum for each modality unified by GEECT of each Regional Secretariat. However, it was up to each school to choose the Foreign Language that it would provide to students. But the course integrated with Vocational Education was offered only for regular Education aimed at adolescents, but not in the YAE modality. It should also be noted that through Resolution 54 of 2005, the State Council of Education defined norms for Upper Secondary Level Technical and Vocational Education in the state educational system, including the integrated form.

According to the directors of SED-SC, the curriculum of the integrated course did not result from the mere direct transposition of the contents of the common regular Upper Secondary Education courses and of the technical course:

> Based on the specificities of each course, new curricula were built seeking to become references to the integration of classes starting from the first grade of the course. In this sense, we looked for our theoretical and methodological foundation in the studies on integrated curriculum, adjustment to the context, and interdisciplinarity.

The course plans created by each school were the object of appreciation and legal ratification by the Secretariat's offices of Upper Secondary Education and Vocational Education and by the State Council of Education of Santa Catarina (CEE-SC), which were responsible for authorizing the creation of the courses of Upper Secondary Education integrated with Vocational Education.

Since the beginning, the schools were advised to include the planning of supervised curricular internship to complement the vocational qualification in their course plans, in compliance with the legislation and the norms at local, state and national levels. Furthermore, the handling of internships was the object of a theoretical and methodological discussion during the last two courses of inservice Education for managers and for teachers in 2006.

The teachers of the Vocational curriculum components were recruited through a public announcement that described the criteria for their admission "on a temporary basis". As they were not part of the regular educational personnel, they were hired under a different contract.

There were some schools that already had adequate labs and structure for the activities of vocational practice; in others, partnerships were made with companies to build adequate labs, which proved to be quite receptive to cooperate with the educational institutions.

For the follow-up and monitoring activities of the implementation of the integrated courses, SED-SC combined different means at headquarters, as well as in regional and local offices:

- Specific coordination for these courses, in connection to the offices of Upper Secondary Education and Vocational Education, worked in partnership with these headquarters of SED-SC;
- Supervision of Basic Education and Vocational Education run by GEECT and by the Regional Secretariats (decentralized bodies);
- Reports produced by the schools.

At the time of the visit by the author of this study, the reference document *Orientações estaduais para o ensino médio integrado à educação profissional* was about to be concluded in its preliminary version. This preliminary version was already quite rich and had the following structure:

1. Historical background and legal foundations;
2. Legal foundations that guide Upper Secondary Education integrated to Vocational Education;
3. Theoretical and methodological principles that guide Upper Secondary Education integrated to Vocational Education (EMIEP) in Santa Catarina;
4. Curriculum basis for Upper Secondary Education integrated to Vocational Education – theoretical and methodological principles;
5. Final remarks and recommendations (referring to the theoretical and methodological structure of the EMIEP, to the management of the EMIEP project and to the expansion of the EMIEP).

Even though the document was not yet concluded at the occasion, it already synthesized theoretical and doctrinal principles that were quite aligned with the official documents produced by MEC after that, as well as with the documents and publications of authors who, either directly or indirectly, have contributed to defining MEC's positions (some of them are present in the second part of this study). The document also sought to reconcile such principles with the norms of the National Curriculum Guidelines for Upper Secondary Education and Vocational Education,

established by the National Council of Education, and with the updated provisions of Decree 5154 of 2004.

According to the evaluation of SED-SC headquarters, the elements that most strongly enabled the creation of the integrated course were:

- At the early stages of the process was the political will of SED-SC and of the Manager of Upper Secondary Education, with MEC's support;
- The receptiveness of society;
- The willingness of the educators in the majority of the schools to invest their efforts in an innovative proposal;
- The gradual implementation, taking into account the actual conditions of the schools;
- The provision of needed infrastructure, equipment, and materials;
- Financial and technical investments sponsored by MEC/SEB;
- Where managers and teachers of school teams were articulate with the regional coordination, the materialization of the pedagogical proposal in a process of effective curricular integration.

Among the main difficulties found, SED-SC pointed out:

- The fact that the universalization of Upper Secondary Education, as the final stage of Basic Education, had not yet been undertaken as a public policy, resulting in meager financial investments;
- Lack of continuity in the educational policies;
- Difficulties in recruiting teachers with the appropriate training in the specific subjects of the vocational courses;
- Absence of discussions with the educational agencies on the concept of EMIEP.

Even though the directors of SED-SC considered the CNE norms of adequate for the integrated model of Upper Secondary Education and Vocational Education[23], they pointed out to the institution's need to produce a legal framework effectively able to integrate Vocational Education and Upper Secondary Education. In all instances, the dichotomy expressed in the legislation made it difficult to propose measures to overcome the duality between general and specific education.

Additionally, they highlighted that the process of creation of the integrated courses faced problems connected to the fulfillment of CNE guidelines in terms of:

23. Legal Opinion CNE/CEB 39 of 2004 and Resolution CNE/CEB 1 of 2005.

- Longer duration of the courses to guarantee the application of the guidelines of Upper Secondary Education and Vocational Education;
- Class hours organized according to the availability of the teachers, and not according to the pedagogical proposal;
- The need for more time for teachers to understand the proposal of integration between the curriculum components of Upper Secondary Education and those of Vocational Education;
- Difficulties in understanding the proposal of context adaptation to the contents of Upper Secondary Education in relation to the competencies of Vocational Training;
- Obstacles to internship activities, due to the age of the students and to the specificities of some areas (such as Health and Industry);
- Difficulty to hire teachers for the curriculum components of Vocational Training. Their salaries were not as high as the salaries of General Education teachers;
- Lack of capacity of most teachers in teaching vocational subjects. They had not been active in the schools since the beginning of the implementation process of the activities;
- Insufficiency or absence of systematic meetings for joint integrated planning of lessons and activities in some schools.

Although the norms of CNE for supervised curricular internship[24] are considered adequate in terms of concept and pedagogical orientation, there were inadequacies regarding the age of the students. In integrated courses with a three-year term and full-time schedules, the students begin their studies at the age of 14, and they complete them at the age of 16, which is the initial age indicated by CNE for internships.

The internship programs in the areas of Industry and Health are ruled by a specific legislation that forbids students from taking part in internships before the age of 16 or 18, depending on the field of training. In this sense, in 2006, we reviewed the bases of the curricula, in an attempt to comply, as much as possible, with the pertinent legislation.

Regarding the norms of the State Council of Education (Resolution 54 of 2005), no difficulties were indicated.

The creation of the new integrated courses at the secondary schools did not affect the provision of the concomitant and subsequent models, which

24. Legal Opinion CNE/CEB 35 of 2003 and Resolution CNE/CEB 1 of 2004.

were delivered in the Vocational Education Centers and Nuclei (CEDUP and NEP) in several localities of the Santa Catarina state network.

As to the future perspectives at the time, SED-SC intended to keep the courses and the same areas of training without expanding them, as the integrated model was still undergoing an evaluation process.[25]

The School

Maria Rita Flor Basic Education School (BES) offered a Vocational Training course in Hotel Administration integrated with Upper Secondary Education. This course was selected due to the need for competent professionals in the area as tourism had increased in the city and in the region.[26]

The school management was composed by a principal, an assistant in Education, a school administrator, an educational advisor, and a technical and pedagogical assistant. The questionnaire presented to the pedagogical coordinator was not answered. During the visit to the school, the author of the present study was accompanied by the manager, the supervisor, and the technical officer in charge of integrating Basic Education and Vocational Education in Itajaí GEECT, whose jurisdiction encompassed the school.

The school was selected because it met the criteria defined by SED-SC for its education network. It presented the best justification for the creation of an integrated course considering its location, the lack of trained professionals, the need for Vocational Training, the absence of other public educational opportunities for Vocational Training in the region, and the perspective of permanence of former students in the community.

The School Management

The director of the school said that, before the proposal, the local community had already expressed the desire for the creation of Vocational Training alternatives. She stated, "When the opportunity to take part [in the project] was offered, corresponding to SED and to GEECT criteria, the school became a candidate in the selection process".

---

25. It should be noted that the data provided by the SED-SC and by the visited school (presented below in this section) refer to April 2007.
26. The school is located in the neighborhood of Bombas, municipality of Bombinhas, at the coast of Santa Catarina State, between Florianópolis and Balneário Camboriú.

According to her, MEC's capacity building included all the schools in the region, and six schools became interested in creating the integrated course.

The adherence of Maria Rita Flor SBE to the project was motivated by the interest of the school, driven by demands of the local productive sectors, in addition to the interest of the local community, as well as to the incentive of Itajaí GEECT to which that school is linked. At the same time, the creation of the integrated course sought to allow youth to remain in the community. At that locality, youth experience was a paradox: for four months; during the summer season, there was an intense work flow, but in the other months, there was lack of work. The municipal government sought sustainable alternatives in order to develop and to expand tourism throughout the year by offering hospitality and correlated activities to other segments beyond the usual summer tourists. The course intended to support this development project.

In the questionnaire, the school principal highlighted:

> When our school started the process of creating the course, it underwent many collective decisions permeated by the following segments: parents, students, teachers, the administrative staff of the school unit, residents' associations, the hotel network association, the Municipal Hall, the Itajaí Office of Education, Science and Technology, SED-SC, and MEC. These decisions were already permeating the curricula. Through training meetings organized MEC, SED-SC, and GEECT on the curriculum included the entire teaching staff of our school and managers. In those meetings, we gradually structured our proposal for Upper Secondary Education integrated to Vocational Education.

The curriculum planning of the course integrated with the qualification as Technician in Hotel Administration was jointly undertaken by the school team and the technical staff of the Regional Office. According to the school principal, "with the definition of the curriculum structure and after receiving the theoretical foundations, we started a continuous process of the studies at the school unit under the coordination of Basic and Vocational Education of Itajaí GEECT".

Along with the meeting for theoretical immersion, an experience of interdisciplinary work was developed. The planning emerged with pedagogical procedures (selection and organization of contents, learning concept and theoretical decisions on the methodology adopted by the school) and

administrative procedures (forms of school records, along with the evaluation criteria defined in the pedagogical proposal). "The school planning activities were becoming effective with monthly meetings that gathered the entire school team and, in some moments, with the presence of GEECT for evaluating and redirecting processes".

It should be noted that the development of the school work was supported both by the headquarters of SED-SC (GEREM and GEREP) and by Itajaí GEECT.

As highlighted by the principal, the school had received support to the educational system from a number of actors, both internal and external. SED-SC enabled actions of inservice Education, visits, purchases of technological equipment, of bibliographical collections, and of school furniture. It also implemented legal procedures for the creation of the course and for hiring human resources. MEC, in partnership with SED-SC, was responsible for organizing the training courses. The Municipal Hall collaborated with transportation and lectures. The association of the local hotel industry offered sites for internships. The residents' association of the neighborhood, where the school was located, offered "support in the discussions on the Municipality needs, expanding the debate, strengthening researches, and participating in the Legislative system".

The Course

In 2007, the integrated course was offered to a total of 125 students distributed in two first grade classes (72 students) and two second grade classes (53 students). Adding to these figures were 108 students of the non-integrated Secondary Level, totalizing 283 students enrolled at this stage of school life at Maria Rita Flor SBE.

The students of the integrated course were recruited through the dissemination of the proposal during parents' meetings, to the students who were about to complete the primary level at the school itself, and in other schools nearby. Regarding the possible precociousness of the vocational choice by students who had just left the Primary Education level, the management of the school considered it as an experiment. Since these were young students that needed to work, they were motivated by the possibility of more immediate professional life. Added to that, since the general environment of the city is connected to tourism, the entire job market was

directly or indirectly aimed at this economic segment and offered opportunities for professionals in this area.

Up to that moment, there had not yet been the need for selection; but there were registration criteria defined by the school's pedagogical team for a selection process (having completed the Primary Education level, being at least 14 years old, accepting the proposal of the course and its administrative requirements, and having an affinity with the profession).

The course lasted three years, with classes from Mondays to Fridays in the morning, and also on Tuesdays and Thursdays in the afternoon. That characterized a semi-boarding school regime. It added up to a total 3400 hours of activities, with 3168 hours of classes and 232 hours of supervised internship.

The course had a total of 23 subjects (or 24, if one of them is considered in two separate parts with the syllabi of "Introduction to administration and human resources" and "Planning and organization of tourism"). Its structure intended to integrate 12 subjects corresponding to the common national basis and Modern Foreign Language (Spanish), with other 11 (or 12) specific subjects, including "Regional studies". The specific subjects were formally categorized in the areas of Languages and Codes, Natural Sciences and Mathematics, and Human Sciences and its Technologies.

The pertinence of the training as provided is clear since the entire city moves around tourism as its major economic activity – represented either by accommodation, or by restaurants and bars, commerce, transportation, entertainment activities, events and leisure. The title of "Technician in Hotel Administration" and the curriculum indicate that the course is directed to a professional with a more generalist profile, attempting to encompass the development of skills that are necessary in the entire area of Tourism and Hospitality, and not only in the accommodation segment. The professional profile upon conclusion – which must define the identity of the course, and, therefore, guide the organization of the curriculum – has a broad and generalist description, reducing its focus by encompassing the activities of "accommodation and other tourism-related equipments".

Obstacles and Achievements

The director indicated the biggest difficulties faced: lack of teaching resources (texts, videos, CDs, subscription of scientific journals, books and specific bibliography for the area of tourism and hospitality); lack of meals

for the students in the two days when they have classes all day long. There would also be the need for support for students' field trips to fairs and other events. The absence of classrooms and labs specifically suited for the hotel segment would be addressed through cooperation with establishments of the tourism area, which would lend their facilities to the students' learning activities. The furniture was considered sufficient, but the school lacks a Chemistry lab and sports equipment. "We dream of a mini-auditorium for lectures and cultural events".

Although the director considered the available financial resources insufficient, she affirmed that the human resources were enough because they were committed and willing to improve the pedagogical practice. Yet, she highlighted the need for pedagogical complementary training for all teachers (of the national common base subjects and of the vocational subjects as well), with deeper notions of tourism and hospitality.

The director also indicated the lack of more interaction and integration among the teachers. Curiously, exactly the opposite was observed during the visit. In fact, the aspect that drew attention and deserves to be mentioned was the creative organization and integrated planning of the teaching staff. An example of this is the bi-monthly planning, when the teachers defined a relevant theme for their subjects to be put into context in the area of Vocational Training proposing a discussion of its problems and indicating their goals (general and specific), their concepts, the disciplinary themes, the action and operation, the criteria and the evaluation tools. This contextualizing action, however, is not a part of the curriculum outlined in the course plan and it takes place aside from it. In spite of the contextualization efforts that had been made, the director was dissatisfied with regard to the interdisciplinarity of the teachers' activities.

Among the main conveniences found in the implementation of the integrated form, the director highlighted the fact that she relied on "a participative community and a responsible group of teachers and a committed administrative staff toward Citizen Education". During the visit, not only the importance of internal cohesion was verified, but also the cohesion of Itajaí GEECT, which was quite present and closely active, supporting and stimulating the school.

As to the prospects for this form of provision of integrated Education, she noted that she envisaged courses with a basic curriculum of Upper Secondary Education aimed at tourism and citizenship, and that these

courses are currently needed in the region. This would lead to new courses with training activities for professions such as Tourist Guide, Event Promoter, among other occupations in the area.

The direction of Maria Rita Flor BES considered the CNE norms for Upper Secondary Education integrated with Vocational Education as adequate and that the legislation defined the necessary limits for its implementation, but opened choice possibilities in the local community interests.

> It stimulated reading for a comprehension of what Basic Education meant for the learning process of youth. It opened possibilities of vocational integration. It produced not only a technical view, but a humanistic training for the comprehension of the world, and it provided an active role as a citizen to the student, who can be honorably integrated to his or her political society.

Regarding the difficulties found in order to comply with these norms, the principal highlighted the joint and integrated planning of classes and activities. She also considered the CEE norms as adequate to the discussion that the school community was having in consonance with the legislation of the state's educational system.

The school principal did not indicate any difficulty in terms of applying the CNE norms that regulated supervised curricular internships, which were considered by her as adequate and very well defined. The students had not yet started the internship period, whose planning was still in progress at the time with a series of scheduled meetings of the school team in order to examine this work more carefully.

Teachers and Students

The interviewed teachers were unanimous in their testimonials: the EMIEP proposal came in good time and they all supported the initiative. As a rule, they said that their students in the integrated course had better performance than the students of the regular Upper Secondary Education course. They ascribed this situation to the atmosphere created by the vocational courses' management and their planning periods, which made the students feel a stronger enthusiasm for their studies.

The teachers informed that they were participating in the already highlighted annual and bi-monthly course planning, and that they were having monthly meetings throughout the year.

Six randomly selected students were interviewed: three in the first grade and three in the second grade; five of them were 15 years old and one was 16. All of them spoke in favor of the course. They said that it responded to their personal vocation; it contributed to their communication and contact with people; it provided knowledge to their city (which is mostly supported by tourism); it allowed an expansion in the number of opportunities in the job market, more knowledge acquisition and closer contact with computers. Five of them intended to work in the area; two of them were already working at guesthouses and one of them also assisted tourists at a store; only one did not intend to work in the area because the student had other educational and vocational goals. All of them seemed to be confident and motivated with the choice of their course – including the student that did not intend to work with tourism.

They considered the school management as a positive aspect. But, as negative aspects, they mentioned one very stern and imposing teacher, too many class hours that made it difficult to keep a job, lack of materials, lack of transportation, and lack of school meals on the days when the students had classes all day long.

Some Considerations

In general, the implementation of this integrated course presented positive aspects that seem to overshadow the negative ones and their difficulties.

Among the critical aspects, the following stood out:

- *Shortage of financial resources, equipments and materials:* it was not surprising since this has been a general and chronic problem in public educational systems;
- *Lack of understanding of the EMIEP concept and difficulty in its applicability*: the theoretical framework based on unified Education and on Polytechnic or Technological Education – strongly accepted by the State Secretariat headquarters – lost strength, turning to be only a feeble echo at school and slightly effecting the actions of teachers, although the teachers of this studied case implicitly moved towards this direction when they planned their subjects with activities focused on the areas of tourism and hotel administration;
- *Lack of contextualization of the contents of Upper Secondary Education for the skills of the vocational qualification:* this weakness was pointed out by

the SED-SC headquarters.The visited school was in the process of overcoming this weakness, albeit only within the discipline and not in the proposed curriculum;

- *Need for joint planning of the classes and activities for integrating Upper Secondary Education with Vocational Education:* this was an essential aspect so that the course could have been effectively integrated rather than a mere juxtaposition of both;
- *Longer duration of the course*: in the case of Santa Catarina, although it had not been long – it lasted three years –, the course became denser and almost a fulltime course, with fulltime classes on some days of the week. This situation resulted in difficulties for the students;
- *Young age of the students for carrying out internship activities:* this was highlighted by the headquarters and it was a real problem, but only for the courses of the professions that had a legal restriction in terms of access to activities by adolescents under 18 years old (such as in some industrial activities, in mining, and in health). In the case of the visited school, there was no problem of this kind;
- *Difficulties in relation to the Vocational Education teachers:* these difficulties ranged from the identification and recruiting of adequate professionals to capacity building for teaching specific subjects in a course in which they worked in a team side by side with teachers trained for teaching General Education subjects. For instance, their special type of hiring contract was different from the regular staff (without the same rights and advantages, and with lower salaries). capacity building

Among the positive highlights, attention should be drawn to the following:

- *SED-SC staff was effectively convinced of the need to provide the integrated course*. MEC's incentive only confirmed and facilitated the initiative;
- *The common commitment of everyone involved in the course*. From the regional educational management staff and the directory of the school until the students. It configured a situation in which all levels of involvement were engaged towards the success of the integrated course;
- The vocational course provided by the visited school, namely Technician in Hotel Administration was pertinent (although with a weaker specific focus due to the strong perspective of tourism in general), because the main economic activities of the city were aimed at this area and at the provision of services to visitors, in addition to responding to the students" interest.

Lastly, regarding the curriculum organization, the predominant proposal was that the subjects of the national common base for Upper Secondary Education and the Modern Foreign Language (Spanish) were only formally and nominally grouped into knowledge areas. One could not see any orientation towards interdisciplinarity, and even less towards Tourism and Hospitality – in particular towards Hotel Administration. As a matter of fact, the subjects were dissociated from each other, especially in relation to the specific subjects of the vocational course.

In the teaching practice, an additional effort was made to contextualize the reality, athough only intradisciplinarly. The teachers established a significant theme for each respective subject. Since this action is not a part of the curriculum and it took place aside from the course plan, it indicated a juxtaposition rather than integration of the two courses. On the other hand, the curriculum did not foster articulation towards an interdisciplinary integration, and this was felt by the school's management.

Certainly, with the experience of its implementation, the revision of the course plan will be able to lead to a new and more adequate curriculum architecture that may be able to consider and to include the above mentioned aspects, as well as others that have been experienced and experimented.

Tocantins

The data and the analysis of the second case refer to the Tocantins State Secretariat of Education and Culture (SEDUC-TO) and its headquarters, as well as to one of the Upper Secondary Education Centers of the state network that has implemented the integrated course.

The Secretariat of Education

SEDUC-TO decided to implement Upper Secondary Education integrated to Vocational Education in 2005. The process began in the following year in cooperation with the Ministry of Education through its Secretariat of Basic Education (MEC/SEB). The provision of the courses started in the second semester of 2006.

When replying to the questionnaire forms, the information provided by SEDUC-TO Secretary of Education and by its officials responsible for

Upper Secondary Education and Vocational Education at headquarters presented some variations.

Initially, it was important to note that SEDUC-TO delivered Secondary Level courses both in the regular form and in YAE modality. Each modality had a common curriculum developed in all schools. The integrated course, however, was only provided in the regular modality, and not in YAE modality.[27] On the other hand, there were also Upper Secondary Level courses on Vocational Education in the concomitant modality (for those who attended Secondary Education) and subsequent modality (for those who had already completed the Secondary Level). Those courses were managed by the Secretariat of Science and Technology – another body of the state government.

The decision to create the course of Upper Secondary Education integrated to Technical and Vocational Education at Upper Secondary Level stemmed from a request by the schools of the state network and was driven by MEC, which provided technical and financial assistance. This cooperation with MEC/SEB was decisive for it included the provision of technical, financial and material resources (with the distribution of computer labs, teaching materials, furniture, and equipments).

The technical cooperation referred to the course planning and curriculum development, as well as the organization of technical meetings. In 2006, out of the financial resources provided by MEC , an estimated 5.5% of the total was spent. The largest part of it (slightly above 94.5%) was authorized to be spent in 2007. No information was provided on the estimated proportion of this participation in relation to the costs executed by SEDUC-TO with the implementation of the integrated format. In any case, it should to be noted that the Secretariat was responsible for all current expenses related to the maintenance of the schools that had created integrated courses, as well as to their activities.

The integrated course was implemented in five school units of the state network in cities of the countryside. The vocational courses were in the following professional areas: Computer Science, Agriculture and Livestock, and Health.[28]

---

27. SEDUC-TO has also developed an experience of integration of Vocational Education with YAE in the *Indigenous Education modality* to meet the specific needs of the students.
28. The visited school –Ary Ribeiro Valadão Filho Secondary Teaching Center – was located in the city of Gurupi and had chosen to provide the course of Upper Secondary Education integrated to Technical Vocational Education in Computer Science.

The courses were selected based on a set of questions and on the indications made by SEDUC-TO, by the State Secretariat of Youth, and by the schools that adhered to the integrated course option on a voluntary basis.

In the capital city of Palmas, a special model of course delivery was adopted in cooperation with the local Federal Technical School (ETF) without any duplication of efforts and resources. In other words, in the state capital, SEDUC-TO did not implement courses of this modality in its network, but it signed an agreement with ETF. The agreement stated that the federal school reserved 50% of its slots for former students of the public educational system, and SEDUC-TO ceded state teachers for the integrated Upper Secondary Education courses. Therefore, the courses provided in Palmas were selected, organized and their curricula developed by ETF in the vocational areas of Industry, Computer Science, Tourism and Hospitality, Agriculture and Livestock and Geomatics.[29]

The SEDUC-TO promoted seminars and meetings with the regional education directors, school managers and teachers to provide information, consultancy and capacity building activities in the implementation of Upper Secondary Education integrated with Technical and Vocational Education at Upper Secondary Level. The curricula of the Secondary Level courses integrated to Vocational Education implemented in the state network were not common to all schools. They were designed by the Secretariat with the participation of teams of only five school units. The contents of their curricula were planned in accordance with the peculiarities of each course and with the needs of each school. They did not consist of changes in the pre-existing curriculum for common Upper Secondary Education. It consisted of "a specific table of contents created for the curriculum of Integrated Upper Secondary Education". A consultant from MEC took part in the discussion about its design and provided guidance in the implementation process of the integrated course, "but not specifically on its curriculum planning".

As to the supervised internship complementing the vocational course, the schools were advised to comply with the current specific legislation and with the guidelines of the publication entitled *Manual: implementação dos modelos de estágios; centros de educação profissional do Estado do Tocantins* [Handbook:

29. In this study, the ETF courses were not examined. Only the courses organized and provided by the state schools maintained by SEDUC-TO were taken into consideration.

Implementation of Internship Models; Vocational Education Centers of Tocantins State].

It was necessary to "increase the total hour load of the course in order to secure the fulfillment of the goals that were defined for general training and for technical vocation". The infrastructure for vocational practice was provided by the schools without the cooperation of third parties (institutions or companies).

The teachers of the vocational curriculum components were not part of the regular educational personnel; they were hired through a different process and selected based on an analysis of their *résumés* and interviews.

The course plans of the integrated form were examined by the schools themselves, approved by SEDUC-TO, and individually analyzed and authorized by the State Council of Education. The Secretariat highlighted "the participation of the State Council of Education in the discussions and programs of the curricula and their contents, as well as in the authorization of the courses".

To disseminate the Secretariat's guidelines for the schools in the implementation of the integrated form of Upper Secondary Education with Technical and Vocational Education at Upper Secondary Level, meetings were organized with parents, students and the entire school team of each unit, promoting discussions and raising awareness about the activities of this educational modality. There were also meetings with the participation of the MEC consultant to discuss the following themes: the Legal Opinion CNE/CEB 39 of 2004; the integrated curriculum – Upper Secondary Education and technical subjects; concepts of Upper Secondary Education integrated to Vocational Education.

SEDUC-TO considered that the norms of the National Council of Education[30] for Upper Secondary Education integrated to Vocational Education were adequate, "as far as our understanding", in spite of the fact that "some points are still obscure". Among the difficulties pointed out in meeting about the CNE norms, the Secretariat highlighted:

- Longer duration of the courses;
- Making schedules compatible;
- Integration between the components of the curricula of Upper Secondary Education and Vocational Education;

30. Legal Opinion CNE/CEB 39 of 2004 and Resolution CNE/CEB 1 of 2005.

- Placing the contents of Upper Secondary Education in context with the competencies of vocational courses.[31]

SEDUC-TO directors did not indicate norms of the State Council of Education to serve as a complement to the National Curriculum Guidelines for Upper Secondary Education and for Technical and Vocational Education at Upper Secondary Level.

According to the directors of the Secretariat, the main positive aspect in the creation of the integrated course were:

- Support by the Ministry of Education;
- Involvement of the schools;
- Interest of the school community in providing Vocational Education;
- Existence of the demand;
- School units with an adequate structure for providing Basic Education.

On the other hand, the main negative aspects identified were:

- An insufficient grasp of the concepts on integration;[32]
- Difficulties in organizing the curriculum structure in order to align it with the legislation on Basic and Vocational Education;
- Non-attainment of the integration of curriculum components;
- Lack of infrastructure to ensure the quality of the course in order to overcome the lack of a satisfactory level of IT skills;
- Lack of pedagogical material and equipment;
- Lack of clarity in the legislation concerning the criteria related to the validity of previous knowledge acquisition, incomplete subjects, adaptations, and school transfers.[33]

The CNE norms for supervised curricular internships[34] were mentioned as adequate, and no difficulty was mentioned – certainly due to the fact that the Office of Vocational Education was prepared for the question, having produced its own handbook: "*Manual: implementação dos modelos de estágios; centros de educação profissional do Estado do Tocantins*".

The creation of the integrated courses in Secondary Education schools had not affected the provision of the concomitant or subsequent forms until that moment. Such forms were coordinated by the Office of Vocational Education (GEREP), which was the executive body for this modality.

---

31. As an attempt to intensify efforts towards such contextualization.
32. A consultancy is expected to be hired for organizing workshops, in order to overcome this difficulty.
33. This difficulty especially emerged when the schools became interested in occupying the vacant registrations that appeared in the integrated course with students of common courses of Upper Secondary Education.
34. Legal Opinion CNE/CEB 35/2003 and Resolution CNE/CEB 1 of 2004.

The follow-up and monitoring of these courses were undertaken by the Directorship of Upper Secondary Education through the joint and "well-integrated" action of two of its bodies: GEREP and the Coordination of Evaluation and Monitoring of Upper Secondary Education, which were in charge of implementing the integrated modality. Reports produced by the schools contributed to the monitoring system, which also relied on the participation of the State Council of Education.

At the time of the visit by the author of this study, the implementation of the integrated courses had begun approximately a year beforehand[35] and had not yet undergone an evaluation process.

As to future prospects at that time, SEDUC-TO intended to keep the courses and training fields that it had implemented, gradually expanding them "with the feet on the ground". On the other hand, the Office of Vocational Education indicated the intention of keeping the courses, though "changing areas of training" and expanding the new modality by including "other training courses".

The Upper Secondary Education Center

The vocational course integrated with Upper Secondary Education provided by Ary Ribeiro Valadão Filho Upper Secondary Education Center, located in the city of Gurupi, was that of Technician in Computer Science (no other course was taught at the time)[36].

The Center's principal informed that its adherence to the integrated course was a voluntary interest of the school itself motivated by the Secretariat, and also because it already had the previous experience of a similar course under the aegis of Act 5692 of 1971.

It equally met the needs of the local community and the demands of potential students, aiming at the preparation of youth for the job market in the region. The decision to provide training in Computer Science was based on the needs of that market.

The principal informed that the course's curriculum had been planned with the school participation through "a study on the needs of the local job

35. The data provided by SEDUC-TO and the information of the Secondary Education Center (presented in the following section) were collected in June 2007.

36. The visited Upper Secondary Education Center offered regular education. Therefore, it was not in the YAE modality.

market, covering the minimum hour load of the common nucleus, and of the vocational subjects". The school also "took part in all curricula changes in the regular courses and in the course plans of Vocational Education that originated from the school unit based on MEC's requirements and on the local scenario".

It received support from SEDUC-TO through "the guidelines and due corrections for the good operations of the Technical and Vocational Education course at Upper Secondary Level". MEC's support happened through "consultations via internet and telephone when the course was created and had its legal authorization obtained".

School Management

The Center's principal affirmed that the financial resources available were sufficient for the daily expenses; and that the Center had "a permanent staff at the moment, but in the coming semesters, due to the increase in the number of subjects, it would be necessary to complement the teaching staff". The teachers of Computer classes had college degrees in Computer Science, but they lacked pedagogical training and worked under temporary contracts. This means that they were left out of the regular staff regime along with its benefits.

There was the need to purchase a specific bibliographical collection on Computer Science, which was the course's Vocational Training area.

The furniture corresponded to the course's operational requirement, but there was the need for a multimedia data projector.

The computer labs already had 11 computers, and the school "awaited the purchase of 20 new computers, as agreed with SEDUC-TO in order to guarantee the quality and the operation of the course".

The execution of the course was sponsored by both SEDUC-TO central offices (Coordination of Evaluation and Monitoring of Upper Secondary Education, and Office of Vocational Education – both were part of Secondary Education Headquarters). It was also sponsored by the Regional Education Coordination. The supervision activities included meetings and *in loco* visits to provide guidance and solve difficulties. Follow-up reports were also forwarded to the school.

The Course

The course lasted four years with an hour load total of 4000. In 2007, Integrated Upper Secondary Education was provided to 54 students divided into two first-grade classes, both in the evening shifts: one of them had 29 students registered and the other had 25. The first class started its activities in August 2006 and the second class in early 2007.

It should be noted that the hour load surpassed the minimum requirement of 3100 hours, in the terms of article 5 of Resolution CNE/CEB 1 of 2005, which updated the National Curriculum Guidelines defined for Upper Secondary Education and Technical and Vocational Education at Upper Secondary Level, according to the provisions of Decree 5154 of 2004:

> The courses of Vocational Education integrated to Upper Secondary Education will have their total workload increased to a minimum of 3000 hours for the vocational courses that demand a minimum of 800 hours; to 3100 hours for the courses that demand a minimum of 1000 hours; and to 3200 hours for the courses that demand a minimum of 1200 hours.

The structure of the curriculum included ten subjects corresponding to the national common basis, plus two subjects from the vocational part, totalizing 2880 hours. These subjects were only formally categorized in the areas of Languages and Codes, Natural Sciences and Mathematics, and Human Sciences and their Technologies; in addition to seventeen other specific training subjects in Computer Science, totalizing 1120 hours. Therefore, the overall load was of 29 subjects with a total of 4000 hours distributed along the four years. An overload of the curriculum and of its duration was thus verified[37]. The organization of the curriculum had a conventional architecture, revealing the juxtaposition of two courses rather than their integration into a single course.

The school had a little over 800 students in non-integrated regular Upper Secondary Education courses, distributed in the three shifts with classes having 35 to 40 students each.

---

37. The Federal Technical School of Palmas, with which the SEDUC-TO has a partnership for providing assistance at the city, also has a course corresponding to this, also with an overloaded curriculum: 33 subjects (13 of the national common basis and Modern Foreign Language, and 20 vocational subjects), yet with a less excessive total load of 3600 hours.

It was not necessary to select the candidates, but only to ask them to fill in a form for their profile analysis. Recruiting was done through visits to school units providing eighth grade of the primary level in the city, through the media (TV and radio), and through posters displayed at strategic points, such as supermarkets, banks and others.

There was no sponsorship or partnership with entities or companies. The school acted independently with its own means.

Among the main facilities found in the implementation of the integrated form, it was pointed out that there was a pedagogical coordinator with professional training in the area of Computer Science. Also, there was already a computer lab in operation. Although precarious, it guaranteed the beginning of the course activities.

Among the difficulties highlighted, it included the difficulty of sustaining continuous student attendance. It happened due to the longer duration of the course (4000 hours in four years), the high dropout rate, and two other reasons: change of city and enrollment in fast-track courses (National Exam for Certification of Abilities of Youth and Adults – ENCCEJA). The lack of school meals was also a negative aspect.

As to prospects for the provision of this modality of integrated Education, it was noted that the guidance was to keep the actual form and to expand it to meet the demand, especially with classes in the morning shift.

Regarding the adequacy of CNE norms (Legal Opinion CNE/CEB 39 of 2004 and Resolution CNE/CEB 1 of 2005) for the integrated form of Upper Secondary Education with Vocational Education in the schools, it indicated "the four-year duration of the course" as a negative aspect.

The following difficulties were mentioned in order to meet these norms:

- Duration of the courses to reach the goals of Upper Secondary Education and the goals of Vocational Education. The students were discouraged by the fact that the courses lasted four years;
- Lack of qualified professionals for capacity building of the Secondary Education teachers;
- Lack of decision to provide the necessary capacity building for the teachers of the vocational components.

No difficulties were mentioned regarding the reconciliation of class schedules and work since the course was implemented in the evening shift; nor in regards to the integration between the components of the curriculum

of Upper Secondary Education and Vocational Education as the integration had met the expected norms up until then; nor in the contextualization of the contents of Upper Secondary Education in terms of the skills of the vocational course since the teachers were already used to placing the reality into context.

There was wide acceptance by the technical staff and by the teachers. So far, no difficulties have been detected with the recruiting and selection of teachers of the Vocational Training components, or with the joint and integrated planning of the classes and activities.

Regarding the adequacy of CNE norms for the activities of supervised internship (Legal Opinion CNE/CEB 35 of 2003 and Resolution CNE/CEB 1 of 2004), it was noted that the implemented course did not include them as a mandatory element.

The norms of the State Council of Education were considered adequate: the follow-up was always available when requested.

Pedagogical Coordination

The answers given by the pedagogical coordinator, who had professional training in the area of Computer Science, were practically identical to the answers of the principal. However, with regard to curriculum planning, she added that she had taken part in "all the necessary processes for the implementation of the course, meeting MEC's specifications", along with all the school team, particularly the teachers that formed the team of the vocational course at Upper Secondary Level.

Her work of pedagogical coordination of the integrated courses was monitored by SEDUC-TO with "guidance and necessary corrections" by the supervising body, through "guidance and monitoring based on the current legislation", and by the school direction through "pedagogical, financial, and administrative support, always with a view to the students' learning improvement".

The pedagogical coordinator liaised with the Coordination of Integrated Upper Secondary Education and with the Coordination of Inspection (both are central units of SEDUC-TO), and with the Regional Coordination of Upper Secondary Education, Management, and Human Resources (linked to the DRE) for developing the pedagogical coordination aimed at the integrated form of Upper Secondary Education and Vocational Education.

She participated in the recruiting of students for the integrated course through the above mentioned means (visits to Basic Education school units, TV and radio, and posters displayed at strategic points).

She also took part in the recruiting and selection of teachers for the vocational components of the curriculum, "along with the entire school's pedagogical team aiming at professionals that presented a profile that was compatible with Computer Science field".

During the visit to the school, the SEDUC-TO Director of Upper Secondary Education was also present, and there was the opportunity to interview not only the director and the pedagogical coordinator, but also the teachers and one student of the course.

Neither the director nor the teachers found problems regarding possible precociousness in the choice of the integrated course with Vocational Education for the students who had just left the regular primary level of Education.

In the first class that started the course in the second semester of 2006, in a period "aside from the regular school calendar", the average age was 19 years old. In the second class, which started in the first semester of 2007, the average age was lower, estimated around 16 or 17 years old.

The teachers considered their activities to be "easier" with the students of the integrated course, as these were individuals who already worked and were older than the students of the common Upper Secondary Education (particularly those of the first class). These students were also seen as "having clearer objectives" and "a more mature view of life".

As a consequence, and with the peculiarity of integration, their lessons were different from the lessons that they taught in the common level of Upper Secondary Education, using an interdisciplinary approach and contextualization for qualified Vocational Training provided in the course.

Regarding the qualification provided, it could be considered as having a potential demand, as Computer Science is not only a professional field on its own, but it also permeates other fields. In fact, there were a number of vacant registrations because the regular number of enrollments available per class was from 35 to 40 (there were 29 students in one class and 25 in the other). The fact that the demand was lower than expected (no selection process was necessary) was worsened by the students' massive dropout. Some students wanted a shortcut by taking fast-track exams to obtain their Secondary Level certificates in order to improve their placement in the job market, or so as to be able to take college entrance exams.

Teachers and Students

The teachers claimed that the vacant registrations should be occupied by transferred candidates, or by candidates who had already completed the Secondary Level. In the latter case, the candidates could have had their previous Education recognized and they should only take the classes on vocational subjects.

The interviewed student was 19 years old. She started her course in the second class (of 2007). She stated that she chose the course due to her previous interest in the field of Computer Science. Thus, she followed a vocational call. She was satisfied with the course, but she was insecure about the adequacy of its four-year duration.

Some Considerations

In general, the implementation of this integrated course presented both positive and negative aspects along with difficulties.

Among the main difficulties, the following were mentioned:

- Insufficient equipment and material; as was highlighted, this has been a general and chronic problem in the public educational systems. In this case, the greatest weakness was the lack of teaching material, including a specific bibliographical collection on Computer Science, and the lack of a new computer lab;
- Lack of understanding and application of the integration concept: in this second case, the situation was an even more intensely chronic problem than the first case, because the theoretical framework based on unified Education and Polytechnic or Technological Education has a weak echo in the system, and no effect on the school or on the teachers' actions (the school, on the contrary, invokes its experience with Secondary Level vocational courses from former Act 5692 of 1971);
- Insufficiency in the understanding of integration concepts: permanence of "obscure points" in the comprehension and application of CNE norms for the integrated form of Upper Secondary Education with Vocational Education;
- Difficulty in the curriculum structure organization: in the attempt to fulfill the legislation of Basic Education and Vocational Education, an integration of the curriculum components cannot be identified. There is

permanence of a structure that is mere juxtaposition of two curricula – of Upper Secondary Education and of Technical and Vocational Education at Upper Secondary Level. This aspect of the curriculum organization is essential so that the course may be effectively integrated;

- Long duration of the course: the course was extended to four years, with an excessive load of 4000 hours. Among other problems, this produced loss of motivation at the time of enrollment and dropout of students – some students preferred to attend fast-track courses so that they could more rapidly obtain the conclusion certificate in Upper Secondary Education;
- Existence of vacant registrations: transferred students were not accepted due to the inexistence of transfer mechanisms and criteria. These mechanisms and criteria could have been enabled by the legislation and norms in force, but they were not sufficiently clear for the different instances of SEDUC-TO as well as of the school;
- Difficulties regarding the teachers of the components of Vocational Education: easy recruiting, but, contrary to the previous case, there were obstacles for hiring teachers with special contracts different from the regular hiring regime. This special contract had no rights and advantages as the other professionals had, and the salaries were lower. Salaries are also low in relation to their capacity to provide specific teaching in a course of this nature, in which they must work along with other qualified teachers of different components and subjects of general training.

The following positive aspects are highlighted:

- Support by the Ministry of Education, under the scope of SEDUC headquarters and of the Regional Coordination of Management, Upper Secondary Education and Human Resources (DRE);
- At the local level, the school community's involvement and interest in the provision of Vocational Education;
- The strategy adopted by the Secretariat, through which it established a form of cooperative provision along with the Federal Technical School (ETF) for the state capital. It avoided effort and resource duplication, with an agreement that allows for the temporary exchange of state teachers. In addition, it saved 50% of the vacant registrations to former students of the public primary educational system.

As to the curriculum organization, the subjects of the national core curriculum, as well as Modern Foreign Language (English) and Entrepreneurship (categorized in the "vocational part"), were dissociated from each other and

from the specific subjects of Vocational Training. In the presentation of those subjects, the curriculum organization expressed in the course plan conventionally described them as segmented without indicating strategies or methodological procedures towards interdisciplinarity or context approach (it only formally and nominally grouped the subjects into fields of knowledge).

In the teaching practice, apart from the curriculum, the classes had a different focus from the common Upper Secondary Education course due to the fact that the students were older and to the peculiarity of the intended integration. Therefore, the teachers expressed their concern with interdisciplinarity and context approach. Yet, such differentiation is undertaken in an extracurricular way because the curriculum does not indicate strategies aiming at the integration effectiveness. In this school's case, as well as with the first school, the curriculum indicates more than the integration, meaning the juxtaposition of two courses.

Also, the experience of its implementation enabled a revision of the course plan based on a renewed and more adequate curriculum.

Conclusion, Criticisms and Recommendations

The final considerations of this study are quite relative and cannot be generalized as it was restricted to the experience of only two schools in two states. Yet, a few indications can be suggested in order to provide inputs to public managers in the implementation of integration policies for Upper Secondary Education and Vocational Education.

Firstly, on the *legal framework*, it is observed that there is a web of CNE Acts, Federal Decrees, Legal Opinions and Resolutions, in addition to the norms of each Federation Unit that must be followed in the Upper Secondary Education and Vocational Education management. When integrating these two modalities – each one with its own curriculum guidelines – its application becomes more complex, especially in terms of conceiving, planning and executing the integrated course.

Along with this complexity, the *doctrinal framework* presents distinct concepts that are contradictory at times, especially those that structure the National Curriculum Guidelines and those that presently predominate in official MEC documents and in documents written by some authors who contribute to its theoretical foundations.

The National Curriculum Guidelines and the theoretical documents, whether official or not, are usually prolix and frequently abstract. These aspects hinder their comprehension and application. The normative complexity and the diversity of concepts blur the understanding of integration of Upper Secondary Education and Vocational Education as a single course, in one or another level of the educational system.

The legal and normative rules, and the theoretical concepts, even when adopted by the headquarters of a State Secretariat of Education, have little impact on the schools, and very weak or inexistent effect on the teachers' activities.

From these remarks, a few indications can be inferred as recommendations:

The first one is that it is desirable that national and state guidelines and orientations become more concise, simple and concrete for better understanding of all educational actors, and for better perception of their applicability in the schools and courses.

The second is to promote compatibility between the Ministerial Guidelines and Regulations and the National Curriculum Guidelines.

The third is to maintain the strategy of inservice Education so that all actors, especially the technical and teaching staff, can take part in study activities and discussions about legislation and norms, as well as in the elaboration of relevant documents and works for the comprehension and implementation of integrated courses, especially in terms of curriculum planning and development.

In the *realistic sphere*, the schools act pragmatically in accordance to the motivation they receive from the governing bodies of their educational system; and in accordance to their means, their culture, and their understanding about this course modality.

In this sense, MEC's motivation and support for the implementation of the integrated course was decisive in both cases. Accordingly, the motivation of the secretariats' headquarters and the support of their regional bodies were and still are decisive for the schools.

The schools frankly admit that they offer the integrated course to equip the student with the skills they need for entering the job market. They also admit that they pay little attention to the attainment of a desirable technological or Polytechnic Education that is "capable of combining work, science and culture in its practice and in its scientific and technological as well as historical and social foundations". The conventional curriculum structure – divided into subjects and adopted in the two studied cases – undoubtedly makes this combination even more difficult.

Actually, if there is a weak integration, it is only in the extracurricular dimension and only under the scope of the national core curriculum components of Upper Secondary Education. The integration between the national core curriculum components and Vocational Education is not weak. This can be noticed in both studied cases, in spite of the fact that one of them moves towards applying the *context approach*. The much defended and desired *interdisciplinarity* is yet to be reached.

There is the risk of presenting as integrated two concomitant juxtaposed course curricula. It can be clearly identified in one of the cases, which

resulted in the extension of its duration, with a plethora of subjects and an excessive hour-load, reducing the students' motivation and making them drop out of the course.

The conventional and static curriculum design does not correspond to the principles of the LDB, of Decree 5154 of 2006, and of the respective National Curriculum Guidelines. Instead, it serves more as a mirror of the previous norms' tradition ruled by the abrogated Act 5692 of 1971.

It is important to recall that Legal Opinion CNE/CEB 16 of 1999 is based on the principles of flexibility, interdisciplinarity and context adaptation, which reflect on the construction of the curricula. This Legal Opinion is a reminder that the curriculum design is an essential pedagogical means for achieving professional profile at the end of the course, which is the basis of its organization highlighting:

> [...] the responsibility of the educational institutions in the curricula organization of Vocational Education, inasmuch as it demands the inclusion, among others, of new forms of work organization, of knowledge incorporation obtained through practice, of methodologies that facilitate the development of capacities in order to solve new problems, to communicate ideas, to make decisions, to have initiatives, to be creative and to have intellectual autonomy in a context of respect towards rules and democratic coexistence.

Legal Opinion CNE/CEB 39 of 2004, which deals with the implementation of Decree 5154 of 2004 for Technical and Vocational Education at Upper Secondary Level, highlighted that there is the demand for a new and updated concept for the integrated course. Therefore, the integrated course:

> [...] cannot and must not be understood as a course that represents the sum-total of two distinct though complementary courses, which can be developed in a bipolar way, with a part of General Education and another of Vocational Education. Such was the logic of the abrogated Act 5692/1971. This is not the logic of the current LDB, Act 9394/1996, nor of Decree 5154/2004, which reject that dichotomy between theory and practice, between knowledge and its applications.

But the difficulty also lies in the design of the curriculum in relation to the general Upper Secondary Level Education, which suffers from the same traditionalism. Expert Opinion CNE/CEB 15/1998 and Resolution

CNE/CEB 3/1998, of the National Curriculum Guidelines for Upper Secondary Education, are prodigal in the innovative treatment of the organization of curricula. The recommended organization by knowledge areas, for instance, is only nominally in place by the schools, through the labeling, as such, of traditional subjects. It is true that overcoming this conventional organization of the curricula is hindered by the configuration of the teaching staff, which is formed, recruited and designed by specific subjects.

One can only recommend systemic capacity building actions for the educational personnel, as well as for the directors and technicians, so that they can design, plan and implement curricula with a perspective of flexibility, innovation, creativity and boldness, and so that they can use methodologies that are active, context-based and inter and transdiciplinary.

By the way, it is observed that the curricula of the regular Upper Secondary Education have not even solved the challenge of the necessary "general and basic preparation for work" yet, nor least the LDB prescription regarding "orientation for work", "Basic Technological Education" and "the scientific and technological principles that rule modern production", which can be paths leading to the much sought after "Technological" or "Polytechnic Education". Such modality of Education will hardly be reached without an innovative curriculum format that is not limited to repeating or adding two traditional curricula.[38]

In this sense, let us remember that abovementioned authors admit that Decree 5154/2004, by enabling the integration between General Education and Technical and Vocational Education in the Upper Secondary Education, is still "a necessary condition for transitioning to a polytechnic type of Upper Secondary Education, and for overcoming the educational duality by overcoming the duality of programs". "Upper Secondary Education integrated with Vocational Education, on a unified general educational basis, is a necessary condition in order to 'transition' to a new reality".

---

38. On the other hand, there is a subsisting set of ambivalences and conflicts regarding the real aims of Upper Secondary Education, whose solution could be pursued through a variety of curricular formats, in order to better meet the heterogeneities of the students and of the environment. Such variety implies in a "flexibility of the curricula, of times and of spaces", counting, among other possibilities, on an open use of the vocational part of the curriculum: through free-choice "extracurricular" studies and activities; through interest groups of students gathered into alternative classes and years/grades; through interdisciplinary and transdisciplinary projects and activities that may stimulate the virtues of initiative, autonomy and leadership; and through the incorporation of new times and spaces inside and outside the schools.

The design and construction of a pertinent curriculum for the course of Upper Secondary Education integrated with Vocational Education is, therefore, an open question to be considered as a priority in the policies that aim at implementing and developing this modality from the perspective of a Polytechnic Education.

More particularly, the existence of vacant registrations (due to the shortage of candidates and to dropping out) is entailing the formulation of strategies, so that they can be filled – for idleness in this case means a social waste and wasted resources. But, as the integrated course has – as it must – an organization of its own, the acceptance of students transferred from common Secondary Level courses without criteria and procedures of "validation" and "adaptation" has become problematic. This is also true for potential candidates who have already completed Upper Secondary Education and who could obtain their professional licensing by using the vacant registrations of the integrated course.

It is recommended that the educational systems encourage schools to develop and apply such criteria and procedures, using the autonomy that the legislation allows and stimulates, but which is not sufficiently taken up. The central institutions can hardly regulate successfully, quickly and flexibly the situations that may present themselves. The school that is closer to the problem at hand will err less.

A particular planning aspect of the integrated course, as it is provided to adolescents who have just left the primary educational level, is that of the supervised curricular internship. Even though it did not take place in the studied courses, it is necessary to observe that some professions or working places have a legal work restriction regarding the exercise of the profession by individuals younger than 18 years old. Thus, it is recommended that the course plan consider and strive to reconcile professional license, mandatory internship, age of the students and legal restrictions for minors.

Regarding the teachers in the technical area of the course, it is recommended that in spite of their special contract, different from that of the regular educational personnel, they should still be treated equally in relation to the other teachers. Furthermore, there must be specific programs aimed at developing their teaching skills, so that they may harmonically be a part of the staff along with the other teachers with an academic degree in the different subject components of General Education and who, therefore, already have such skills.

For directors, coordinators, teachers and technical staff involved, we insist in the capacity building activities with a focus on curriculum management, including the design, planning, implementation and evaluation stages, so that they may effectively create and maintain the integration between General Education and Vocational Training, from the perspective of a Technological or Polytechnic Education.

The final remark is related to shortage of resources, equipment and materials – which, as was mentioned above, is not surprising, as this is a general and chronic problem of the public educational systems. However, some resources cannot be missing at the start of the implementation of the courses, such as teaching materials, including a bibliographical collection aimed at the particular field of Vocational Training, and specific classrooms and labs.

Finally, it should be noted that this work, with the considerations and recommendations presented above, is limited to the cases that were studied, although it may stimulate different views of the reported findings and allow conclusions that may complement, confirm or contradict it, in order to contribute to the implementation of policies that promote the integration of Upper Secondary Education and Vocational Education.

Bibliography

ABRAMOVAY, M.; CASTRO, M. G. (Coords.). *Ensino médio:* múltiplas vozes. Brasilia: UNESCO, MEC, 2003.

BRASIL. *Legislação*. Available at: <http://www.presidencia.gov.br/legislacao/>. Access on 23 November 2009.

BRASIL. Ministério da Educação. *Conferência Nacional de Educação Profissional e Tecnológica:* educação profissional como estratégia para o desenvolvimento e a inclusão social; documento-base e propostas das conferências estaduais. Brasilia: MEC/Secretaria de Educação Profissional e Tecnológica, 2006.

BRASIL. Ministério da Educação. *Documento-base do Programa Nacional de Integração da Educação Profissional com a Educação Básica na Modalidade de Educação de Jovens e Adultos (PROEJA):* educação profissional técnica de nível médio/ensino médio. Brasilia: MEC/Secretaria de Educação Profissional e Tecnológica, 2007.

BRASIL. Ministério da Educação. *Documento-base do Seminário Nacional de Educação Profissional:* concepções, experiências, problemas e propostas. Brasilia: MEC/Secretaria de Educação Média e Tecnológica/Programa de Expansão da Educação Profissional, 2003.

BRASIL. Ministério da Educação. *Educação profissional como estratégia para o desenvolvimento e a inclusão social:* roteiro para debate nas conferências estaduais preparatórias à Conferência Nacional de Educação Profissional e Tecnológica. Brasilia: MEC/Secretaria de Educação Profissional e Tecnológica, 2006.

BRASIL. Ministério da Educação. *Ensino médio integrado à educação profissional:* integrar para quê? Brasilia: MEC/Secretaria de Educação Básica, 2006.

BRASIL. Ministério da Educação. *Exposição de motivos do Ministro da Educação ao Presidente da República*, propondo a edição do que veio a ser o Decreto nº. 5.154/2006. Brasilia: MEC, 2006.

BRASIL. Ministério da Educação. *Subsídios para o processo de discussão da proposta de anteprojeto de Lei da Educação profissional e tecnológica.* Brasilia: MEC/Secretaria de Educação Profissional e Tecnológica, Departamento de Políticas e Articulação Institucional/Coordenação Geral de Políticas de Educação Profissional e Tecnológica, 2004.

CONSELHO NACIONAL DE EDUCAÇÃO. *Atos Normativos do Conselho Nacional de Educação*. Link: <http://portal.mec.gov.br/cne/index.php?option=content&task=section&id=7&Itemid=206>. Access: 23 November 2009.

CORDÃO, F. A. A educação profissional no Brasil. In: PARDAL, L. et al. (Org.). *Ensino médio e ensino técnico no Brasil e em Portugal*. Campinas, SP: Autores Associados, 2005.

CORDÃO, F. A.; AUR, B. A. Estrutura e funcionamento atual da educação profissional no Brasil. In: UNESCO. *International Centre for Technical and Vocational Education and Training*. Bonn: UNESCO-UNEVOC, 2005.

FRIGOTTO, G.; CIAVATTA, M. (OrgS.). *Ensino médio:* ciência, cultura e trabalho. Brasilia*:* MEC/SEMTEC, 2004.

FRIGOTTO, G.; CIAVATTA, M.; RAMOS, M. A gênese do Decreto nº 5.154/2004: um debate no contexto controverso da democracia restrita. In: FRIGOTTO, G.; CIAVATTA, M.; RAMOS, M. *Ensino médio integrado:* concepção e contradições. São Paulo: Cortez, 2005.

IIEP. *A qualificação profissional como política pública:* sugestões para o novo governo. Santo André,SP: Intercâmbio, Informações, Estudos e Pesquisas (IIEP), 2002.

SEMINÁRIO NACIONAL DE EDUCAÇÃO PROFISSIONAL: CONCEPÇÕES, EXPERIÊNCIAS, PROBLEMAS E PROPOSTAS. Brasilia, 16-18 jun. 2003. *Anais*.... Brasilia: Ministério da Educação/Secretaria de Educação Média e Tecnológica/Programa de Expansão da Educação Profissional, 2003.

ZIBAS, D. M. L. A reforma do ensino médio nos anos de 1990: o parto da montanha e as novas perspectivas; and Breves anotações sobre a história do ensino médio no Brasil e a reforma dos anos de 1990 In: PARDAL, L. et al. (Org.). *Ensino médio e ensino técnico no Brasil e em Portugal*. Campinas, SP: Autores Associados, 2005.

PART 2

DISCUSSION ABOUT THE POLICIES OF INTEGRATED UPPER SECONDARY EDUCATION: A WORKSHOP ORGANIZED BY UNESCO

Opening Speech

The initial idea of organizing this workshop came up in a meeting that we at UNESCO had with professor Carlos Artexes, when he took office as Director of Curricular Affairs of the Secretariat of Basic Education. It emerged from the need to discuss Integrated Upper Secondary Education more clearly, both from the standpoints of its design and of its implementation in the states.

However, our concern and our activities under the scope of Upper Secondary Education and Vocational and Technological Education began earlier than that. Since 1997, the UNESCO Office in Brazil has collaborated with the Federal Government and with the State Governments in the development of policies and management tools both for Upper Secondary Education and for Vocational Education, through actions aimed at producing and disseminating knowledge, and the professional improvement of the public managers of these policies.

For a long time, we have been concerned with the difficulties faced by managers and school professionals in terms of securing educational quality for their students' learning and the transmission of essential abilities and skills for life in society and for the development of their citizenship. As we know through the evidences shown in study results, the educational systems are still searching for ways to ensure the fulfillment of the functions established for Upper Secondary Education in the LDB, and for the concrete provisions and applications of the National Curriculum Guidelines for this educational level. At the same time, it is known that the state Vocational Education is largely based on a weakly structured policy and does not count with the necessary conditions to secure an adequate quality level for Vocational Training of the students.

By creating the modality of Upper Secondary Education integrated to Vocational Education, Decree 5154 of 2004 launched a new and more complex challenge for the public state schools and educational systems. The concern with the dimension and the contours of this challenge is what drove us to support the initial study, undertaken by professor Amin in 2005, in the two states in which the State Education Secretariats and schools had managed

the implementation of the proposal, with technical and financial support from the Ministry of Education. A surprising element emerged here: in 2005, in spite of the fact that the data pointed towards a considerable number of students enrolled in Upper Secondary Education integrated to Vocational Education in public schools of different units of the Federation, only two Education Secretariats had a more structured set of curricular guidelines.

It is the same concern, along with the desire to collaborate towards the advancements, and perhaps improvement, of this proposal that further drives us in this workshop. We meet in order to take the analysis to new levels, to discuss the challenges of Upper Secondary Education and to reflect on points of agreement and disagreement, worries and alternatives – in short, to contribute to the structuring of a policy for Upper Secondary Education integrated to Vocational Education.

The decision to have this workshop is based on the intention to create a chance for presentation, discussion and dissemination of the knowledge generated by the study. At the same time, we intend to have an opportunity for dialogue with the different actors of Upper Secondary Education and Vocational Education, in order to expand the contributions through the diversity of perspectives by each one of us present here. The results of this workshop will be further presented in a publication on the policy of Upper Secondary Education integrated to Vocational Education in order to contribute to the managers so that we may reach the goals of educational quality and social inclusion for our youth and adults.

We are, therefore, thankful to you for accepting UNESCO's invitation for this event, and for your collaboration with this discussion.

Marilza Regattieri
Programme Officer – Education Sector
UNESCO Office in Brazil

Contexts

Quality Upper Secondary Education for All: Indicators and Challenges

Speaker: Carlos Artexes Simões[39]

Upper Secondary Education has reached a relevant place in the agenda of educational policies in Brazil, with constant media presence. Such permanent exposure engenders the risk of making its problems and failures seem natural without developing a consistent public policy with solutions capable of collaborating to overcome the crisis that currently characterizes this final stage of Basic Education.

Our position cannot be restricted to recording the quantitative indicators of Upper Secondary Education. Besides voicing the diagnosis of its present situation, it is also necessary to seek proposals and a broader comprehension, so that Upper Secondary Education can raise its actual quality level in an attempt to attain significant learning for all students.

The federal government and society have organized extremely important events to create a culture of participation, as well as to find collective forms of raising awareness and democratization of information in the field of Upper Secondary Education. UNESCO's initiative adds to such effort as it promotes this discussion with a small number of participants – a methodology that allows us to take a more careful look and to deepen some issues related to Upper Secondary Education with a more precise focus on the complex variables that involve this level of Education.

Brazil has accumulated a large number of quantitative educational indicators. However, our proposal in this presentation is not only to present data, but to build a critical view based on their analysis and to show the various themes interconnected with them.

39. Director of curricular design and guidelines at the Secretariat of Basic Education of the Ministry of Education (SEB/MEC).

Upper Secondary Education is related to specific age groups and to stages of human development that are natural to each moment of life. Therefore, we are here to define different pedagogical proposals that can be promoted based on the specificities and singularities of these individuals. Thus, we could consider specific proposals for distinct groups of Upper Secondary Education – meaning adolescents aged 15 to 17, young adults aged 18 to 24, and adults older than 24 –, taking into account the particular age characteristics of these individuals and more clearly defining compatible educational proposals.

After the 1988 Constitution and the Act 9394 of 1996 – LDB – the institutional arrangement of the Brazilian educational system started to be defined based on proposals of decentralization of responsibilities and of autonomy for the federated actors. Brazilian history registers their lack of commitment to Education leading to delays in fulfilling the right of the population to have access to Education in all levels, but particularly in relation to Upper Secondary Education. In terms of legal framework, compared to the MERCOSUR countries, for instance, Brazil has not been able to guarantee a mandatory provision of Upper Secondary Education, even though the country has committed to progressively making it mandatory as the final stage of Basic Education. Nowadays, in spite of the difficulty that we have in assuring universal provision of Education to the age group of 15 to 17, it seems relevant to continue the efforts to make it obligatory.

Another issue to be highlighted and also institutionalized by Act 9394 of 1996 is the provision of the Youth and Adult Education (YAE) modality in order to serve the immense group of young and adult individuals, who have not had access to Basic Education at the appropriate age. However, YAE has not yet become a qualified provision that responds to the specificities and singularities of the individuals of this age group, and its pedagogical proposal generally has a rapid and reduced nature. An adult or a young individual who returns to basic learning usually ends up studying at night subjected to inadequate conditions, and in a school that has been designed for Primary Education activities with pedagogical proposal suitable for children and oftentimes with teachers who do not have the experience and training to work with adult students.

Out of its 180 million inhabitants, Brazil has around 53 million individuals enrolled in Basic Education. The decreasing rates of population growth are

becoming a key feature of the discussions on public policies for Basic Education, particularly for the prospect of universalizing Upper Secondary Education. The so-called "youth-wave" is in decline, that is, the large group of young individuals in the population is declining, which leads us to expect a substantial decrease in the demand for enrollment in 10 or 15 years from now. On the other hand, this decrease tends to accelerate the demand for the age group of 15 to 19. Nowadays, this age group includes 17 million individuals; but in 15 years from now it is expected that this age group will decrease by three million people. It is necessary to consider this context in order to meet mid-term and long-term challenges, and to promote universal provision in Upper Secondary Education.

A study to be considered is the characterization of young Brazilians as workers: in Brazil, there are more working, out of school individuals, than students aged 15 to 24. As age increases, there is a sharp drop in the number of individuals studying and an increase in the integration of youth in the job market, generally in precarious and informal jobs.

In order to think about Vocational Education for the young population, it is necessary to reflect on what type of work we are referring to. Out of the 35 million Brazilians aged between 15 and 24, 22 million are part of the economically active population (EAP). Among them, 18 million are working in informal Economy. This means that they are working without a formal contract, without labour rights and with low remuneration. Data issued by IBGE shows that young persons are working, but a large percentage of them are earning no remuneration. We are not only talking about domestic work or free-lance work, but also referring to slave work. The data also shows that when an adolescent is remunerated, he or she earns less than the minimum wage in extremely precarious work conditions.

In 70% of the families with members aged 15 to 17, the monthly income does not reach one minimum wage *per capita.* 40% of these families live on a monthly income lower than half a minimum wage *per capita.*

Brazil has 1.4 million people aged 15 to 17 years old, and 24 million aged 18 to 24 years old. In the 15 to 17 age group, the rate of schooling is 82%; thus, 18% (or almost two million young persons) are not in school. A large percentage of adolescents of this age group, who should be studying in the Secondary Level, are still in the Primary Level. In the 18 to 24 age group, the rate of those who do not have schooling and are not studying is almost 70%,

which is extremely high. In addition, many individuals are illiterate in this age group.

We draw attention to an indicator that is increasing in Brazil and in the world, as a surprising social phenomenon: the large number of individuals aged 15 to 17, who neither study nor work. A recent survey by IBGE shows an increasing number of adolescents that are not working nor looking for a job, and likewise are neither studying nor looking for educational institutions. Along with difficulties in provision and access to Education, this could mean that these young persons are not including work or schooling as a reference in their life prospects and strategies. In Brazil, we are referring to eight million young individuals. This phenomenon is taking place in the entire world, including in "developed" countries.

One might ask: what do these young individuals do? Some say that they are busy with illegal and criminal activities, which we believe is an incorrect analysis. This is true for some of them, but a significant part of youth is inserted in society in a passive way, without interacting with the traditional social insertion processes. The new technologies (TV, computer, etc.) encourage the absence of a relationship between youth and the alternatives of schooling and socialization. This situation should also be considered as passive resistance and an escape from the proposal of a competitive and de-humanizing society that is presented to youth.

The challenges and strategies of Upper Secondary Education to overcome such reality include:

- Universal access to Education and school permanence of adolescents aged 15 to 17 (slightly above ten million individuals). This means not only correcting flows in the Primary Education level, but also creating specific educational opportunities for the particular characteristics and realities of the adolescents. We do not believe that there must be a single option of Upper Secondary Education. The universal status has the character of a general rule, but it can only be reached with due respect for cultural, social and geographical specificities.
- Guaranteed access to Education and school permanence for individuals older than 17. We refer to millions of young persons and adults who can be potentially assisted.
- Identity and curriculum definition for Upper Secondary Education compatible to the reality of contemporary knowledge, considering cultural

and social diversities. The struggle for providing Upper Secondary Education for all is recent in Brazil: access to schooling was not expanded until recently. In the past 15 years, the number of enrolled students was increased by 5 million individuals. Such expansion and possibility of universal access to school must take place with quality and must follow a compatible pedagogical proposal in order to assure a significant learning experience for each and every student.

The increase in the population aged 15 to 17 is stabilizing. This population is currently around 10 million individuals and is expected to decrease in ten years. Fifteen years ago, the net rate of schooling, that is, the percentage of youth aged 15 to 17 studying in the Upper Secondary Level was 20%; in 2007, this figure was 47%. The most surprising data refers to the rural population: 18% of the Brazilian population is living in rural areas, and the net rate of schooling among the adolescents in this age group is around 20%. In 2011, the National Plan of Education (PNE) defined as a goal to reach 60% of the net rate of schooling for Brazilians aged 15 to 17.

As of 2004, we have faced a reduction of enrollment rate in Upper Secondary Education – something unexpected, as the previous studies did not foresee such decrease. If the previous growth expectation had been maintained, we would have had over 10 million students in the Upper Secondary Education in 2010. Beyond the use of a more trustworthy methodology, the reduction of enrollment recorded in the official indicators is a phenomenon happening in a delimited place and age group: it takes place in large cities of the Southeast region of Brazil, and among individuals older than 18 years of age. One of the main reasons for the reduced enrollment in Regular Education is the displacement of young individuals older than 18 to the YAE modality. The enrollment in the YAE modality at Upper Secondary Level has increased. In 2008, more than 400 thousand individuals have sought to obtain a certificate of Secondary Level studies by taking the National Certificate Exam (ENCCEJA). The decrease in the evening courses is a trend that has been observed since 2005. It means an increase in both the enrollment for day classes and the dropping out of students from the age group above 18 years old.

Regarding administrative management, Upper Secondary Education is predominantly managed at the state government level. The municipal network still has a significant provision of 160 thousand enrollments; the Federal

Network has 80 thousand enrollments, and the private network has one million enrollments. The expansion of enrollment at the Secondary Level has been undertaken by the state governments, though in precarious conditions.

There is a myth regarding the expansion of the private network in the provision of Basic Education: many say that the students are leaving the public network and joining the private network due to its better quality, which is not a reality. Since 1991, approximately one million Secondary Level students have enrolled in the private network. This percentage figure is falling *vis-à-vis* the total provision of Education. What should be discussed is not the privatization of enrollment, but the private educational services provided in the public sphere. It is about the democratization of the quality of Education.

Another surprising *datum* is the number of students enrolled in Teacher Education vocational courses at Secondary Level. It is truly a phenomenon as we are talking about more than 209 thousand registrations offered by Secondary Teacher Education Vocational Schools, in spite of the fact that LDB indicates that Teacher Education must be provided at university level. On the other hand, the increasing expansion of Early Childhood Education may promote even more the demand for Teacher Education at vocational Secondary Level.

In addition to the distortion between school-grade and age in Basic Education, other significant aspects are the dropout rates and grade repetition at Secondary Educational Level. During Basic Education years there is a 50% dropout rate.

Regarding the continuity of studies, more than 60% of the students who successfully complete Upper Secondary Education do not continue their studies up to university level. The number of years of schooling has increased, so has the schooling level, but most students have no plans to continue their studies. This reality points to another issue, namely the false dichotomy between university preparation and vocational functions. The Brazilian Secondary School is not and never has been a university-preparatory school, but in the minds of teachers and middle-class families the prospect for Higher Education remains. Most students do not consider the prospect of attending universities. Vocational Training does not exclude the possibility of continuous studies, therefore it does not contradict the

prospect of Higher Education. Thus, it is important that there is an integration between Upper Secondary Education and Vocational Education.

An experience of integration between Vocational Education and Upper Secondary Education existed in Brazil and was interrupted by Decree 2208 of 1997. Although the LDB has not defined the separation between Upper Secondary Education and Technical and Vocational Education at Upper Secondary Level, Decree 2208/1997 forced it through regulation. Only the recent abrogation of this Decree has allowed the return of the provision of Upper Secondary Education integrated to Technical and Vocational Education at this level.

Brazilian Upper Secondary Education also presents unsatisfactory results in terms of learning. The state government educational systems have the worst achievement results due to the fact that they submit most of the enrolled students to the most adverse conditions of educational provision with reduced financial resources and reduced numbers of qualified teachers – few of them have adequate training or a Teacher Education degree. Therefore, the school ranking created by the mass media has no relevance at all since they try to compare educational quality without analyzing the students' profile and the general conditions for pedagogical practice.

The public educational policies should respond to four dimensions: funding, school management and school networks, pedagogical proposal, and valorization of educational personnel.

At this moment, we are discussing the identity of Upper Secondary Education, overcoming the idea of its university preparation function as opposed to the professional function, besides pointing out the fact that work can structure any type of Upper Secondary Education. Work is not reduced to professional training; it is a structuring reference to the secondary school curriculum. This reference can be either professional or not. In my point of view, this is the novelty in Brazil for we have a tradition to value academia, bachelor's degrees and slave-like work that separates intellectual from manual labour. Work, science and culture must be the central pillars of any Upper Secondary Education being "offered".

The Upper Secondary Education public policy must necessarily value the state governments: although it is important to expand the federal educational network, it is a relatively small effort to respond to the existing number of students. Independently of who is responsible for educational management,

the solution for Education lies with being able to consider at its core the schools, the teachers and the students.

Several proposals of educational programs have been developed to improve Upper Secondary Education in Brazil. There are relevant actions such as *Plano de Desenvolvimento da Educação*[40] (PDE), *Fundo de Desenvolvimento da Educação Básica*[41] (FUNDEB), *Plano de Metas*[42], *Brasil Profissionalizado*[43], *Programa Nacional de Atenção ao Estudante*[44], teaching books, school libraries, *Programa Dinheiro Direto na Escola*[45], *Política Nacional de Formação de Professores*[46], *Nova Coordenação de Aperfeiçoamento de Pessoal da Educação Superior*[47] (Capes), and the national minimum salary for teachers.

More recently, under the scope of the federal government, a working group was created by the Ministry of Education, in partnership with the Secretariat of Strategic Affairs of the Presidency of the Republic, to undertake studies and present proposals for Upper Secondary Education. This group had two goals: to present a pedagogical restructuring model and a proposal for expanding the number of enrollments. The result of the report is the proposal of a new program for supporting Upper Secondary Education, with the objective of articulating the federal and state networks from the perspective of national Upper Secondary Education working in collaboration between the Federal Government and the units of the federation (the states). The idea is to defend the public school, independently of its administrative, state or federal sponsorships.

Discussion: Upper Secondary Education, Youth and Labour

Amin Aur (UNESCO Consultant) – YAE has always been considered as temporary and less important because it has been assumed that someday the amount of individuals that needed to be "redeemed" would be exhausted. It is important for YAE to be taken seriously and to become institutionalized,

40. Education Development Plan.
41. Basic Education Development Fund.
42. Plan of Targets.
43. Professionalized Brazil Programme.
44. National Programme for Student Assistance.
45. Direct Money at the School Programme.
46. National Teacher Education Policy.
47. New Coordination for Higher Education Staff Improvement.

because it will always be necessary. No matter how developed Brazil may become, it is foolish to imagine that an educational program for youth and adults may not be necessary. All developed countries have such a program.

In this presentation I would like to highlight that labour must be the guiding axis of Upper Secondary Education as a whole. It should not only be for this specific proposal of Integrated Upper Secondary Education since one of the purposes of Upper Secondary Education expressed by the LDB is basic preparation for work. What is this basic preparation for work that is entirely absent in Upper Secondary Education? It has only become present now in its integrated form, but it should be present in the entire scope of Upper Secondary Education.

Jane Castro (UNESCO) – Every time the curriculum reform is discussed, I think about how much it affects the classroom environment. I would like you to speak more about the teachers' perspective, which you have mentioned in the strategic objectives. The Upper Secondary Education reform that started in 1997 was based on changes in the work load, in Teacher Education, in direct monitoring, and in schools provided with materials. In other words, it involved a set of conditions that did not happen – just like the reform itself that did not happen either. What does MEC refer to when it speaks of valuing teachers?

Sandra Regina de Oliveira Garcia (SEED-PR) – It is always good to hear from MEC that it is concerned about Upper Secondary Education. As a representative of the state government educational network, I understand that this concern is valuing us, because the state government public schools are the main actors responsible for Upper Secondary Education in this country, as the available data describes. Likewise, apart from the private educational network, the state governments are also in charge of providing Vocational Education.

The labour dimension has always been present, and it is not new. In 2003, in the beginning of this government, in a seminar to address our point of view about Upper Secondary Education, the dimensions of Labour, Science and Culture were also pointed out. There is nothing new about that, but we faced difficulties in putting it into practice. This implementation only started with the integration between Upper Secondary Education and Vocational Education. Indeed, I believe in Vocational Education integrated to Upper Secondary Education.

Working with a focus on Teacher Education is essential. It is no use repeating these dimensions if we cannot apply them to schools, and this is a huge difficulty.

Another aspect to be mentioned is that the federal network is not a model, and can only become one when it changes its entry requirements. We will not make it to another level until the profile of incoming students is the same as the state government educational network. For instance, in the State of Paraná, the highest ranked schools in the Basic Education Development Index (IDEB) are *Colégio Estadual do Paraná* and *Centro Federal de Educação Tecnológica* (CEFET). Why? Because they have a different form of entry, so the process through which the students join these two schools is not the same as the other state schools. The latter accept all students who have completed primary school, because it is their right.

Carlos Artexes (SEB/MEC) – There is no standard for comparison between the federal and state government educational networks. They cannot be compared in terms of their different forms of entry, or in terms of the profile of incoming students in these school networks – not to mention their social and economic level and other aspects. I consider this comparison perverse since the indicators are comparing different things and do not focus on what is essential. The mass media overstates the ranking criteria, and even creates one picture of educational quality for private and another for federal educational networks. The CEFETs have produced interesting proposals, as well as important and considerable results. But they cannot serve as a model, especially from this perspective of providing Education for all.

In relation to labour, we are not talking about different things. We must speak of Vocational Education in two distinct senses, *lato sensu* or *stricto sensu*. To begin with, there is nothing better for the world of labour than someone who knows how to read and write. From the *lato sensu* perspective, all Education is related to preparation for work: I'm thinking about what is essential for Education, i.e. educating individuals and developing capacities. Preparation for work is innate to any educational process.

It seems that Upper Secondary Education always represents a project for the future, and not a project that is taking place in the present. Is it aimed at the university admission exams [*vestibular*], or at job market integration? Work does not come after Upper Secondary Education; it is *in* Upper Secondary Education. We are not preparing for future employment; we must have a

situation in which work is incorporated to the present time of educational training. This is the meaning of work as an educational principle.

When talking about *stricto sensu* Vocational Training, what is meant is training for a specific social placement. We all know the relevance of Vocational Education as a life strategy for less privileged individuals – as a matter of fact, for people who are 15, 16 or 17 years old. We are not assigning less importance or disqualifying *stricto sensu* Vocational Education. All studies show that vocational knowledge, or work knowledge, has been denied of workers. In Brazil, higher knowledge and work knowledge are privatized. Excluding it from a social group is an error. We are defending, for each and every form of Upper Secondary Education, the integration of the work dimension in the ontological sense, that is, with a curriculum focused on Science, on Culture and on Labour as elements to the final stage of Basic Education.

Labour integration is one thing and educational principle is another. The public policy for Upper Secondary Education is broader than *stricto sensu* Vocational Training. Vocational Training will not take place universally. From the *lato sensu* perspective, work is intrinsic to Secondary Level training – it is an educational principle.

Regarding Jane's question, I now speak on behalf of the Ministry of Education. The new Capes (Coordination for Staff Improvement in Higher Education) was created with the objective of strengthening pre-service and inservice Teacher Education due to the current school system being insufficient to face this problem. I am referring to a system that is capable of planning quality conditions of educational provision. For instance, Brazil has an annual output of 1,800 teachers for Physics education. In the past 25 years, out of the 18,000 individuals that have graduated in Physics, only 6,000 (33%) work as teachers. If this scenario is maintained, it will be necessary to educate three professionals so that one could work as a teacher. In Upper Secondary Education and in Primary Education between fifth and eighth grades, we would need at least 56,000 Physics teachers as a preliminary estimate. The situation for Chemistry Education is quite similar, not to mention other areas such as Music, Sociology and so on.

Beyond training, we have the national minimum salary for teachers. Work conditions for teaching are also important, along with the fact that teachers have lost their leading role in their profession. The LDB granted autonomy to schools and allowed teachers to take part in the creation of the pedagogical

project. What happened to all that autonomy? What is the power of teachers in schools? Normally, he or she is disconnected and practices teaching individually, resulting in a situation of uncommitted teachers who pull back from the definition of the educational processes in the school environment (not to deny that there are schools with a collective spirit among their teachers). Picture some teachers in their schools: confined to their classrooms, dissociated from their peers, not talking to each other or sharing the problems in their relationships with the students. On the other hand, we have another type of student that requires a different kind of educational process: students are more questioning and more demanding, and they experience more complex situations. The teachers live in solitude in the exercise of their work, and they are professionally and socially undervalued. This leads to low self-esteem, which must be regained.

We have 209,000 students attending Teacher Education classes at secondary level. These future teachers must be encouraged. We must provide them with the possibility of following a teaching career. Brazil will not solve the problem of lack of teachers without understanding and valuing the role of the profession – and that will not happen by changing their working conditions only.

Irailton Lima (SEE-AC) – The proposal for Upper Secondary Education issued by MEC, which is still being discussed, intends for the National Educational Network to be coordinated by the Ministry. I believe that the correct path would be to invert this logic: instead of being at the hands of the Ministry, conditions should be created so that the central leading role would be played by communities at local level. Maybe this is one of the great problems of Education: the school is a closed environment, under corporate control and distant from its social surroundings. We, as educators, hold great responsibility in this situation since we view School Education as a static process, as an end in itself. We are not paying attention to the social role of Education; we are taking Education for granted, and we are failing to connect it with the more general social development processes. If the several social segments of the community are invited to participate in school activities, they will require that Education relates more objectively to the challenges, needs, and perspectives faced by the community. In this sense, regarding the creation of the National Educational System, maybe the arrow should point the other way.

In the construction of a national system, we as educators are way behind regarding many other areas and governmental policies. We are talking about a system, when, in reality, the actors are totally disconnected. Our law talks about "a collaboration regime", whereas in the fields of Health, Security and Social Service, for instance, integrated systems – with clear definitions, funding mechanisms, and so on –, have been under construction for a few years.

Carlos Artexes (SEB/MEC) – Only an additional comment: I believe that the key principle of Education must be freedom of organization and of pedagogical practice. I also believe that the construction of Education requires proper action at every moment in the history of mankind. Due to the history of the Brazilian Educational System, which was not able to assure the Right to Education for All, we face a big challenge that must be overcome. In this sense, a more centralizing and interventionist type of action by the State is needed in order to guarantee basic conditions for Education.

General Education and Vocational Training from the Standpoint of Competencies

Speaker: Francisco Aparecido Cordão[48]

General Education and Vocational Training are two different sides of the same coin. Good Vocational Training rests upon the foundations of a solid General Education. It is not possible to substitute Vocational Training for General Education nor is it possible to provide this kind of training to those lacking the contents of Vocational Education. This is due to the fact that much of what is required in the world of labour consists of knowledge developed within General Education. Therefore, it is not possible to separate General Education from Vocational Training, and all attempts at separating them have turned out fruitless. This symbiosis between the two is inevitable even if it takes place in different spaces at different times.

The text of the LDB reform regarding Vocational Education integrates Technical and Technological Vocational Education with the different levels and modalities of Education. The fact that the text integrates it does not necessarily mean that it has to be integrated in the same curricular space and time, but that it has to be provided from the perspective of developing an integrated form of knowledge. As we have discussed at CNE, the concept of vocational competence implies and presupposes three dimensions: to articulate, mobilize and put into action the knowledge, skills and values that will meet the challenges of everyday personal and professional life. And it also supposes the different modalities of Education and the intercomplementary dimensions of Work, Science and Technology that integrate Vocational Training with General Education, like two sides of the same coin. Such concept was already present in the Act 9394/1996 and is also present in the

48. Counselor of the Chamber of Basic Education of the National Council of Education (CEB/CNE).

Act 11741 of 2008. It is important to highlight that the banishment of the integrated model was not provided by Decree 2208, but by a later Ministerial Administrative Order – it is clear that the draft of the Decree led to the Administrative Order. Thus, it was not the Decree, but rather the Administrative Order that defined the separation between General and Vocational Education – a separation that, strictly speaking, was not determined by the original regulation of the LDB in the text of Act 9394 of 1996.

The provisions of Decree 5154 of 2004, which reformulated Decree 2208, were absorbed by the Act 11741of 2008. The main merit of this Decree was to highlight the different models of Vocational Education (integrated, concomitant, and subsequent) from the standpoint of the development of such programs into educational processes. It was important for the schools to organize the provision of courses in accordance with the different course programs, beginning with initial training and moving on to technical, vocational and technological courses, facilitating access to the various alternatives of pre-service and inservice Education for workers.

It is from this perspective that we have worked at the CNE with the National Curriculum Guidelines, both for Technical and Vocational Education at Upper Secondary Level and for Technological Education. That work moved through an increase of discussions and proposals: Expert Opinion 16/1999 (on which Resolution 4/1999 is based), Expert Opinion 29/2002 (of Resolution 3/2002, on Technological Education), and Expert Opinion 39/2004 (of Resolution 1/2005, updating Decree 5154), and so on. Another Expert Opinion is coming up to explain the goals of Act 11741/2008. Such construction of National Curriculum Guidelines for Technical and Technological Vocational Education is a collective effort based on the practices during the ten years previous to the reform prescribed by the current LDB.

It should be noted that the LDB distinguishes only two levels of National Education: basic Education and Higher Education, with Upper Secondary Education being the consolidation stage of Basic Education. Our Constitution states that Primary Education is a subjective public right. The LDB, however, by characterizing only two levels of National Education, further elaborates this subjective public right to Primary Education by viewing Early Childhood Education as primarily the responsibility of the municipalities, and Secondary

Education as primarily the responsibility of the state governments. Furthermore, it extends this concept as a citizen right. This led CNE to reaffirm (both through Expert Opinion 16/1999 and Expert Opinion 29/2002) that, strictly speaking, after Basic Education, everything is Vocational Education. We could have made another two-level distinction between Basic Education and Vocational Education, but due to the prejudice against labour inherited from our past experience with slavery, this dimension was not accounted for as such. Nevertheless, all of it happens to be Vocational Education.

In the national legislation, Vocational Education appears alongside Regular Education. The recent Act 11741/2008 makes it clear: Vocational Education can be developed along with Upper Secondary Education, but not in place of the contents of General Education. This provision was already present in paragraphs 2 and 4 of article 36, in the original LDB text. But Act 11741 created a new section, in Chapter II of LDB, a chapter that deals with the general provisions on Early Childhood Education, on Primary Education, on Upper Secondary Education – and, now, on Technical and Vocational Education at Upper Secondary Level – in a part of former article 36. It maintained Chapter III, "On Vocational Education", with slight changes in its text and title, which was rewritten as "On Vocational and technological Education", yet without essential changes in the spirit of the original proposal.

It is not about a return to the reform of the military days, to Act 5692/1971, which split the former "Second Degree Education" (current Upper Secondary Education): half of it was General Education, and half plus one was Vocational Education. The half corresponding to General Education had a common nucleus, specific classes such as Moral and Civic Education and the like; the other half had the minimum vocational contents. This split is neither provided nor allowed by the original LDB text, and even less by the recent Act 11741/2008.

Vocational and Technological Education in the Current LDB

The current LDB (that is, the original text and the reform of July 2008) places Vocational and Technological Education at the junction of two fundamental citizen rights: the right to education and the right to labour, which, in article 247 of the Constitution, is mentioned as the right to professionalization.

Vocational Education is essentially an educational activity that fulfills the role of securing the right to Education for all citizens – an Education that leads them to the job market, not as it is now, but to a job market in constant change. Thus, it is fundamental to articulate Work, Science and Technology. This is about ensuring that citizens can enter the job market in a position to change it and follow its changes, to update their expertise and to constantly develop their capacity to learn.

Concerning citizen rights, three key elements are paramount for Vocational Education:

- Commitment to the capacity to learn, and, while at it, the capacity of learning how to learn, which enables the individual to keep on learning with increasing levels of intellectual autonomy regarding the objects of knowledge;
- Continuous development of critical thought, which is mentioned in article 36 of LDB, and of the capacity to flexibly adapt to new work conditions as well as future demands of improvement and specialization (which means that Vocational Education is not merely training, but the development of abilities in order to articulate, mobilize and put knowledge contents, skills and values into action);
- Education activities evaluated through their results, in terms of the development of the capacity to learn and of building professional skills (for this reason, the guidelines place vocational profiling at the end of the course as an ethical commitment from the institutions of Vocational and Technological Education to their "clients": students, workers, employers and the community as a whole). It is necessary to work along the lines of this triple dimension. Such commitment is not only made to students who will become job applicants or to the workers themselves, but it extends to employers and the entire community, which benefits from professional services.

The New Curricular Paradigm of Vocational Education Through Technological Axes

There is a change of paradigm in the organization of the Vocational Education curriculum, which was already present in the Catalogue of Courses of Technological Vocational Education three years ago, and which is now applied to the Catalogue of Upper Secondary Level Technical and Vocational Courses.

In the previous paradigm, the curriculum structure was based on subjects previously defined as the minimum Vocational Program by the former Federal Council of Education (CFE). Based on Expert Opinion CFE 45/1972, which established the minimum programs, it was enough to seek the professionals for the course plan to be practically defined. Now, the curriculum must be taken as a strategic means for citizens to develop professional skills that allow them to mobilize, articulate and put into action acquired knowledge, skills and values, and to attain intellectual autonomy in relation to acquired knowledge and their own work.

The ethical commitment of the school consists of a Vocational Profile at the end of the course which must be clearly defined, with an identity of its own and recognized usage within the world of labour and the developing society. Therefore, the clearer the school's view about the definition of its own curriculum, the better the course will be.

This new paradigm will require that schools survey the reality of the world of labour in relation to the courses that they intend to develop with workers, employers, scientists and so on. It will require that schools examine the evolution of that particular profession, area, or subject in their planning. Besides researching the present world of labour, it will be necessary for schools to look for means to predict what reality the citizens and professionals they propose to educate will face in the future. The organization of the curriculum must be committed to results, which demands a stronger sense of purpose from schools in their researches and curriculum proposals. It is not enough to build a curriculum proposal based on the school's previous experience and its teachers; it must be based on a certain view of reality as well as a prospective view of the future of this reality.

The duration of the course is therefore connected to the Vocational Profile at the conclusion of its activities and to the ethical commitment of schools with developing skills and abilities for a productive and social life. The CNE only established a minimum workload, although it is known that oftentimes the minimum turns into maximum, as the maximum can hinder the insertion of students in the job market. But such disadvantage will only occur without proper consideration. If carefully considered, it will benefit the students by granting them the necessary skills to carry themselves through a constantly changing world.

The Vocational and Technological Education institution must function as a center of technological reference, both to the technological axis of its

area of knowledge and to the region where it is located, where its students work. It needs to be a center of technological reference for its students, for workers, employers, scholars and researchers in the area, and so on.

In this context, which are the criteria for planning, structuring and organizing the courses and curricula? These are some of the central criteria:

- The capacity to fulfill the demands of citizens, of the job market and the society. Thus, it is not only about market demands.
- Reconciling the demands identified with the vocation of the teaching institution and its actual conditions for making it possible. In theory, all schools in Brazil can provide all Technical and Vocational Education Upper Secondary Level courses. Is there a demand? Are there teachers available? Does the school have the necessary equipment? Are the school facilities appropriate? Are there technological resources? Is the school effectively apt to provide this course? If not, then the Portuguese aphorism applies: "Whosoever lacks competence cannot become established".
- The definition of the Vocational Profile at the conclusion of each course, with an identity of its own, established by the identified demands and in tune with sustainable development promotion policies in the country. That is the profile that defines the identity of the course. I have been in contact with the State Council of Education of Rondônia, in Porto Velho. The state is changing and has become a construction site by way of the federal Growth Acceleration Plan (PAC), and the state officers were surveying the profiles and the number of professionals that must be trained in the five coming years. It is clear that the institutions of Vocational Education in Rondônia, and even Acre and Amazonas, must take this into consideration. Development plans and policies in the region must become criteria for planning and organizing the courses and curricula.
- The structuring of the curriculum by professional areas or technological axes according to the social-occupational and technological framework. Such structuring must be aligned with the course's Vocational Profile: it defines its identity and characterizes the ethical commitment of the school with its students and the society. The structure can be divided into modules or stages, including the possibility of recognition of partial studies, with a certificate of professional qualification or professional capacity building, in accordance with Decree 5154. The

LDB has incorporated initial training or vocational qualification, but I would rather go back to using the expression "professional qualification" for labour, which should not have been abandoned. Such structuring of the curricula must propose formative programs able to lead to and enable the training of students and workers. It must characterize the specific training of the professional, aimed at the development, application and dissemination of technologies, instead of just their application, in order to develop vocational skills in tune with their respective productive sector.

In the current legislation, the available alternatives for joining Vocational Education with Upper Secondary Education are:

- Technical and Vocational Education at Upper Secondary Level integrated with Upper Secondary Education;
- Technical and Vocational Education at Upper Secondary Level integrated with the modality of YAE at Upper Secondary Level (PROEJA);
- Technical and Vocational Education at Upper Secondary Level concomitant to Upper Secondary Education;
- Upper Secondary Level Technical and Vocational Education concomitant to Upper Secondary Education, with unified pedagogical projects;
- Upper Secondary Level Technical and Vocational Education subsequent to Upper Secondary Education.

As for Upper Secondary Level Technical and Vocational Education integrated with Upper Secondary Education in the modality of regular teaching, an increase in the total workload is required. Thus, the 2,400 hours of Upper Secondary Education are aimed at the students' General Education – that is, a stage of consolidation of Basic Education, including the education on citizenship – for the world of labour. Specific training, even when integrated, is complementary. Therefore, a minimum of 3,000, 3,100 or 3,200 hours has been established depending on the professional area, in accordance with the technological axes of the Catalogue of Upper Secondary Level Technical and Vocational Courses, which maintains the same workload of the previous areas due to its specific grouping of vocational areas according to structural axes of technological contents.

I would like to recall that, soon after the issuance of Decree 5154, Expert Opinion 39/2004 of CNE highlighted that there was no equivalence of credits between Upper Secondary Education and Vocational Education. Upper Secondary Education is a condition: Vocational Education is structured

upon a solid basis of General Education, and therefore there is no room for the equivalence of studies. I draw attention to this point because as Decree 2208 interpreted the LDB following the outdated perspective of Act 5692, it allowed for the equivalence of 25% of the General Education. But Act 5692 declared 50% and 50%, and, erroneously, Decree 2208 has transformed this proportion into 75% and 25%. Such equivalence of 25% of General Education to Vocational Education ended up causing some absurd distortions. For instance, as 25% of 2,400 hours is equivalent to 600 hours, there was a case of someone who took an 800-hour Accountancy Technician course by using 600 hours of Upper Secondary Education and an additional 200 hours of Accountancy. This caused an immediate reaction from the Federal Council of Accountancy against their registration, as they could not be an Accountancy technician. The equivalence of studies, in this case, was merely bureaucratic.

In the case of an effectively integrated Upper Secondary Education – not a *make-believe* one –, in which the teachers work on the project in an articulated and integrated way, there can be – please note, there *can* be – a workload economy. For instance, an Upper Secondary Level Technical and Vocational Education Optics student must learn Optometry and Lens Refraction in order to learn about Lens Surfacing: in General Education, in Physics class, students learn about refraction. These contents can be worked into the curriculum: instead of 200 hours of Geometric Optics in Physics and 200 hours of Optometry, the entire contents could be contemplated in 300 hours. But this depends on each pedagogical project.

In the case of PROEJA, where Technical and Vocational Education at Upper Secondary Level is integrated with Upper Secondary Education in the YAE modality, the minimum load for General Education is 1,200 hours, and for integrated Vocational Training, the minimum load is 800, 1,000 or 1,200 hours.

In Technical and Vocational Education at Upper Secondary Level concomitant with Upper Secondary Education, there may be an equivalence system for the available educational opportunities, either at the same educational institution or among different ones. It is interesting to note that both Decree 5154 and the new Act 11741 incorporate this alternative – actually, so much so that even those who attend the *make-believe* integrated modality can also effectively attend the concomitant modality in the same teaching institution. If the concomitant modality is chosen, there is no economy in the workload.

As for courses concomitant with unified pedagogical projects, that is, courses developed under a regime of intercomplementarity between two schools, note that SENAI and SESI have a project of intercomplementarity in which SESI is in charge of General Education whereas SENAI is in charge of Vocational Education.

Lastly, the former "sequential course" of Decree 2208, or Technical and Vocational Education at Upper Secondary Level in the subsequent format, it has Upper Secondary Education as a prerequisite; and, depending on the vocational area, it must have a minimum load of 800, 1,000 or 1,200 hours of vocational content.

Organization of Vocational Education by Competencies

The organization of Vocational Education by competencies, from the perspective defined by the CNE, must go through a few steps.

The first step is the definition of the school's pedagogical project in accordance with articles 12 and 13 of the LDB, with the institution and the teaching unit: what are the school's business, proposal, objectives and mission?

The second step is the definition of the Vocational Profile at the conclusion of the technical and vocational course at Upper Secondary Level that it intends to offer, and the program's format according to the context of the different vocational areas and different technological axes.

The third step, an underlying part of the second, is clarity in the definition of the vocational competencies to be developed by the students until the end of the course.

Since competence is the capacity to articulate and mobilize contents, skills and values, the fourth step is the identification of which contents, skills and values (attitudes and emotions) should be worked on by the school in order to develop the professional competencies and to enable that Vocational Profile, pursuant to the school's pedagogical project.

It is only as a fifth step that the school will take up the organization of the curricula, including activities of supervised internship and, eventually, a paper at the end of the course – which could be by subject, by project, by theme nucleus and so on, as long as it is in consonance with the results of the learning process. One of the LDB guidelines is to subordinate teaching activities to the learning results, in accordance with the General Provisions of article 23:

> Schooling can be organized in years (forms), semesters, cycles, a regular alternation of study periods, non-form groups based on age, competency or other criteria; there are in fact several forms of organization possible that should be chosen in consonance with the learning process.

Another guideline is the pedagogical project as an expression of the school's autonomy.

The sixth step is the definition of criteria and procedures for the evaluation of learning and the establishment of vocational competencies along the course – including the evaluation of competencies for those who are already workers, who have developed such competencies and may use them for the continuity of the studies. What is the criterion for this equivalence system? The criterion is the school's course plan (Expert Opinion 40 of the CNE), which will allow the assessment of whether the acquired competence corresponds to that which would be developed in the course. If there is no correspondence, the equivalence mechanism cannot be applied. For instance: I have worked for 30 years in hospitals and I would like to put my experience to use in the nurse training vocational course at Upper Secondary Level, but I have 30 years of experience in only one sector, and I have never been in a surgical center, nor have I worked in an emergency facility; therefore, my experience will not be of use for all the basic nursing techniques, but only those in which I have developed my competencies – but not without prior evaluation, since a competence involves not only knowing how to do things, but knowing why one is doing them in a given way and not another.

The seventh step is the identification of the actual technical, technological, physical and financial conditions and of duly certified staff in order to implement the intended course.

Lastly, the eight step: to create a pedagogical plan or project for the course, and to submit it to the approval of the authorized educational institutions. The plan must be an effective work instrument of the school, and not only a document to be approved by the Council, by the Secretariat of Education or by MEC. In any case, one must not start with the eighth step. This reminder is connected to the fact that, under the former paradigm of Act 5692, the plan was the starting point. As a matter of fact, the starting point was to consult the Expert Opinion of the Federal Council of Education.

The National Catalogue of Technical and Vocational Courses was approved by Resolution 3/2008 of the Committee of Basic Education of the CNE and works around the notion of technological axes. In other words, the guideline for structuring a course is in fact the technological axis, defined through a technological matrix that directs the pedagogical project and crosscuts the curriculum of the course, providing it with an identity and a basis. The technological axis guides the definition of the essential and complementary components of the curriculum, expressing the trajectory of the formative path, directing the educational action and setting the pedagogical requirements.

General Education and Vocational Training: Government Policy Building

Commentator: Dante Moura[49]

I consider our present discussions very relevant. Sometimes, we get concerned about the diverging points of view, but this is the moment for a really relevant appreciation of what type of integrated Upper Secondary Education we are talking about, how we think about integrated Upper Secondary Education from the standpoint that we have adopted, from our life trajectory, our education and our understanding of society, of the world and Education. This is the moment to put these questions in evidence, so that we may later seek the possible syntheses.

Initially, I thought about delivering my comment through a dialogue with the words of Prof. Cordão. But from a perspective of putting different views of the same object in evidence, namely Upper Secondary Education and its integration with Vocational Education, I will attempt to point out some different concepts that have emerged in the discussions, even though they have not been directly addressed.

In the course of the history of Brazilian society, there have been and still are tensions basically between two concepts of education. One of them is that of egalitarian education as a right of all and for all, regardless of the role that each group plays in society. The other concept, of differentiated education, is destined (allowed) to those who occupy a less privileged position in the socioeconomic scale, almost as a poverty relief proposal so that these subjects can become functional for the system. There is also a third concept, stemming from the second, which is education as the provision of services for those who can pay, and which has been quite strengthened in the recent years, especially after the second half of the past

49. Lecturer at the Federal Institute of Education, Science and Technology of Rio Grande do Norte (Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Norte - IFECT-RN, also known as IFET) and researcher in education, with emphasis in the field of vocational education.

century. Therefore, the discourses and conflicts move around these three major perspectives, which become enmeshed: either someone says something that strengthens one of these perspectives, or positions are affirmed and strengthen another, which is the element of contradiction between society and us, the subjects who belong to this society.

Historically, education has been functional in taking into account the country's economic development model. I will outline a very brief retrospective of the relationship between Basic Education and Vocational Education in Brazilian society.

From the institutional standpoint, Vocational Education did not exist in the first centuries of Brazilian history. During its different cycles, an economy essentially marked by crops and mining demanded heavy labour. As an economic system, it did not demand training in the various professional fields, and there was no major concern with the education of the working classes, that is, indigenous workers and slaves. The roots of Vocational Education at that time were found in the craft guilds, whose knowledge and mastery of a craft were handed down through a master-apprentice relationship.

The institutionalization of what we now call Vocational Education emerged more clearly in the 19th century, with the arrival of the royal family in Brazil, when the Schools of Factories [*Colégios das Fábricas*] started to be created. The first record of such a school dates back to 1809. Their purpose was essentially to support orphans and abandoned children by providing them with theoretical and practical instruction, and initiating them in industrial education, to prevent them from becoming social outcasts. This situation changed at the turn of the century, when the country's incipient industrialization process started to demand a position from the State regarding Vocational Training for certain industrial activities. Such schools were then created in 1906, when Nilo Peçanha was governor of Rio de Janeiro, in order to meet that demand, although they were still aimed at the poor and humble. In 1909, as President of the Republic, Peçanha created 19 Schools of Craftsman-Apprentices, and 10 of them started operating in 1910 (nowadays, at Upper Secondary Level, they are the technical schools, agro-technical schools and CEFETs). Although the welfarist character remained, the goal had slightly changed, because these schools started to have a much clearer function in the economy: to meet the demand for workers in the emerging industry. In the 1930s and 1940s, Brazil underwent a large scale

industrialization process. In the 1940s, there was the creation of SENAI (National Service of Industry Training), and soon after of SENAC (National Service of Commerce Training), thus originating the current S-System, which nowadays includes around 11 institutions.

A hallmark of this process is the separation between college-prep Education and Vocational Education. The former was aimed at a more restricted portion of the population: the children of the ruling classes, who went through schooling with the goal of reaching Higher Education and getting a degree, thus perpetuating class division. Vocational Education was aimed at the remaining youth as a type of Vocational Training for a large group of workers. Such separation results from a culture of slavery present in Brazilian society, from a depreciation of manual labour and an over-appreciation of intellectual work.

The effervescence of the 1940s brought new possibilities of migrating from one type of education to another, albeit not fully, by means of equivalence mechanisms. It was not until 1961 that the then Act of Guidelines and Bases of Education formally ensured full equivalence for the first time: whoever completed the vocational part of primary education could take the exams that give access to Higher Education. In spite of that, duality remained from a more concrete standpoint: during the entire trajectory of a student, one curriculum was meant to prepare for Higher Education, and another, for Vocational Training. Therefore, even though there was already the legal possibility of access by the students of a vocational course to Higher Education, in practice this possibility did not materialize.

In 1971, the reform of the LDB made secondary vocational teaching mandatory for all, but this took place in a perspective of impoverishment of the curricula, because the college-prep contents of education s*hrunk* – these contents had always been and still are requested as a parameter of access to Higher Education. In their stead, a total of more than 50% of Vocational Training specific content was inserted. It is clear that the social classes with more economic power did not submit to this curriculum and kept the preparatory nature of Upper Secondary Education, which led to the university and, once again, the lower classes were left out of this path.

A crucial question lies in this over-appreciation of intellectual knowledge in detriment of manual labour: neither one model nor the other corresponds to the education that is sought for the Brazilian population. It is not interesting for the Brazilian population, or in terms of the social and economic

development of the country, for education to have an essentially (college-) preparatory character, because labour produces knowledge. Labour evidently has a manual dimension, but it is also an ontological category, that is, it is above all a relationship between human being and nature. If certain segments of our population are educated and trained outside this perspective, it is difficult for them to comprehend the meaning of labour for society. On the other hand, if other segments of the Brazilian society are educated in order to perpetuate the view that they are fit for manual labour, they will likewise be unable to take new steps in regard to historically produced and accumulated content; therefore, they will not have effective and scientific mastery over the contents of their work, and will not be able to change their living conditions.

This is the integrated Upper Secondary Education that we have discussed, one that seeks full training based on Work, Science and Technology as well as Culture as structuring axes – yet, conscious that it is work that produces knowledge. Such knowledge, when validated and raised to the category of scientific knowledge, is transposed to other spaces and becomes the productive force that moves society. All human beings must have access to this knowledge in order to build a society that is different from the present one.

Our hope is for a future society in which all individuals of both sexes may have access to the final stage of Basic Education, namely Upper Secondary Education, and in which this stage becomes meaningful for life as a whole. Thus, everyone will graduate as autonomous subject with scientific and technological knowledge in relation to the culture in which one is inserted. With such training and according to their life conditions and interests, people will be able to move or not towards Higher Learning. But everyone would have the conditions to do it. We know that even if one day access to Higher Learning becomes universal, society will have more than solely occupations and jobs that require Higher Learning. Those who do not go through Higher Education will be able to live with dignity; and by mastering scientific and technological content that is part of society, they will be empowered to participate politically, socially and culturally. Such content and such dignity, therefore, must be available for all.

Evidently, in order for them to live with dignity, it is also necessary for society to change and recognize the technical and vocational professions at Upper Secondary Level. In Brazilian society and Latin America, remuneration disparities between the different levels of training and occupation are absurd. In countries with more advanced capitalism, especially European countries,

the difference between the lowest salary (of the blue-collar worker who may not have finished Basic Education) and the professional that attended Higher Education is three to fourfold. It is necessary to advance beyond the field of education, because education is inter-related and part of a larger system. Education will only advance if society as a whole advances.

How can we move forward in this direction? We still live today in a structural duality and, as Frigotto mentions, there is a transition to be made before we can build this type of Upper Secondary Education based on the relationship between Work, Science, Technology and Culture, which does not necessarily result in *stricto sensu* Vocational Education, but allows citizens to master contents that relate to the productive processes of contemporary professions. Upper Secondary Education integrated to Vocational Education is the path for this transition, because its concept takes work as an educational principle, along with the integration of Work, Science, Technology and Culture as well as Vocational Training.

The people who have discussed this theme in recent years have never advocated for universalization of Upper Secondary Education integrated to *stricto sensu* Vocational Education; instead, they have defended a unified basis for the entirety of Upper Secondary Education, a basis that enables everyone to have an integrated understanding of the relationship between Work, Science, Technology and Culture. They also support the provision of an integrated Upper Secondary Education in which Vocational Education (strictly speaking) is significant for each state and region as a government policy. This educational policy of Upper Secondary Education integrated to Vocational Education will aim at two large groups: adolescents coming from a so-called *regular* path (a concept that I consider inappropriate, as it suggests that the other possible modalities are *irregular*), and the YAE public; all in one single concept of integration between Upper Secondary Education and Vocational Education, yet with a different view of the process through which adults learn and that of children and adolescents, which are different. It is necessary to be clear about this, and to make education and learning more effective for those audiences.

It is necessary to accept integrated Upper Secondary Education as a government policy of the Brazilian state. However, it is not easy to transform an idea into a government policy. In order to advance towards such transformation, the first dimension to consider is the national reach, that is, the Brazilian State as a whole. The failure to include this dimension will prevent its

consolidation as a government policy. The second aspect is the fact that nowadays the state and municipal systems are the ones that have the constitutional ability and function of making Basic Education a universal service. That is where the focus of the Brazilian State must be.

Nonetheless, in opposition to my previous statement, few states and municipalities have real conditions to implement or expand integrated Upper Secondary Education for adolescents in the YAE modality. There are a few exceptions: the state of Paraná made a decision and has been implementing integrated Upper Secondary Education as a government policy; the state of Santa Catarina has also made significant advancements; and in this publication, we have seen the case study on the experience of Tocantins. There are tentative isolated cases in Brazil as a whole; but an isolated case is not a government policy.

The Federal Network plays an important role, but no matter how far its provision is expanded, in my view, it will never be able to have significant reach, from the quantitative standpoint, within the Brazilian educational matrix. It is (and must be) a privileged space within the development of curricula, and within the interaction with state and municipal networks; but this government policy will only effectively take place, in quantitative terms, within state networks of education – including its functional status in relation to the Federal Constitution.

There are six other indispensable dimensions for the institutionalization of a government policy for integrated Upper Secondary Education: concepts, principles and foundations; political and pedagogical project; a reciprocal cooperation regime among the public spheres and with other sectors of society; funding; regular staff and pre-service and inservice Teacher Education and adequate physical infrastructure. If these dimensions are not discussed, if they are not studied in depth and secured, it will be either difficult or impossible for integrated Upper Secondary Education to become a government policy.

I shall now point out a few additional problems related to these dimensions.

Concepts, principles and foundations: I take the opportunity to have a more direct dialogue with the presentation of Prof. Cordão, because he started from the political and pedagogical project. As I see it, before the political and pedagogical project, comes the concept of integrated Upper Secondary Education in the Brazilian society. Not mine, nor Sandra's; not

Prof. Cordão's or Prof. Jarbas': what is the Brazilian society's concept of Upper Secondary Education integrated to Vocational Education? We need these concepts, principles and foundations to guide us. The first problem is: Prof. Saviani claims that we do not have a national education system in Brazil, and points out the difficulties along the path of building such a system, starting from the fact that society is divided into classes, and, therefore, the interests of the classes are different. If a system represents an articulation of parts around a common concept, how can a common goal exist when the interests are quite different? Such difficulty, which has been very clearly reflected in the discussions of this workshop, is an element to be accounted for.

The political and pedagogical project is another dimension, and Prof. Cordão already spoke in depth about it. Therefore, I will refrain from speaking directly about it, proposing instead some connections with the other dimensions.

The regime of reciprocal cooperation among the public spheres and with other sectors of society is a third dimension, about which much has been said here. But I insist further on this theme, to see if there is a consensus among us. It is clear that there is a need for articulating and cooperating within the Ministry of Education itself, so that an effective cooperation regime can take place also with the states and municipalities, from a non-hierarchical perspective. To this end, it is necessary to conduct the discussions in a more horizontal level, and to promote an articulation with the sectorial policies of the spheres of action of other ministries, such as the ministries of Labour, of Science and Technology, of Health (which has several actions in the field of Vocational Education and training), and others. Such cooperation also needs to advance a lot among the universities, especially public universities, in the Federal Network of Vocational and Technological Education, and in the state and municipal schools – including its role in maximizing the use of spaces and professionals.

This more horizontal cooperation will allow for the construction of the knowledge scope of Upper Secondary Education, which is neither a given nor under construction in a more systematic way. Such cooperation will help in the creation of the political and pedagogical project, and in the definition of the adequate courses for each municipality and school, as this interaction will lead to the development of studies on the social, economic and cultural feasibility of the courses in each location.

Funding is another fundamental dimension, but I will not address it here, as it has already been widely discussed.

A regular staff and pre-service and inservice Teacher Education: is it possible to have a political and pedagogical project that includes those elements highlighted by Prof. Cordão, when the school lacks a teaching staff of its own, or when the existing one lacks proper training? I find it difficult. I am not aware of any experience that has advanced in terms of Education without a teaching staff of its own, with adequate training in their particular fields. In this dimension, one of the difficulties is the lack of a minimum consensus around what Integrated Upper Secondary Education must be, and around what Teacher Education in the field of Vocational Education must consist of. This difficulty must be made explicit so that it can be further analyzed.

Another difficulty, which is not restricted to integrated Upper Secondary Education, but encompasses Basic Education as a whole, is the education of teachers who are already active, and of those who are working towards a degree, as this education is insufficient for them to work in an integrated type of Upper Secondary Education with the characteristics that we are discussing, with this projection of the future. Furthermore, it is unlikely that this discussion will be successful in Brazilian universities, as they have difficulty incorporating such themes to the academic degrees. Teachers' education for the specific field of Vocational Education has always been rushed and, as Resolution CNE 2/1997 establishes, it has a character of pedagogical complementation.

With these comments, I don't mean to deny the importance of the university; quite the contrary, it is fundamental for the development stage, including technological development, reached by Brazilian society. But it has its difficulties, just like any institution, and this is a field in which it is necessary to advance; to this end, criticism is important and must be undertaken.

I will give you a specific example: the Teacher Education for PROEJA – integrated Upper Secondary Education in the modality of Youth and Adult Education – had its first initiatives in the Federal Network of Vocational and Technological Education, whose institutions are not universities, in spite of the fact that they provide Higher Education. Clearly, the Federal Network is a very appropriate space, but the fundamental element is the involvement of the universities in this training, in this process of mutual cooperation among the different actors involved in it. In this field of PROEJA, we have been facing many difficulties.

The PROEJA concept is advanced, as it meets an effective demand and allows the return of the dropout youth and adult population to Basic Education, along with quality technical training when it comes to Upper Secondary Education. This represents added value with a strong potential for change in the living conditions of this portion of the Brazilian population. However, the rush with which it was demanded that the institutions take action in this field (in the beginning, the institutions of the Federal Network) can be causing irreparable harm to the construction of PROEJA. And one of the major problems is Teacher Education. As immediate action was demanded from the Federal Network, and as it responded to this demand without internal reasoning, what has been happening? Teachers who historically worked with Upper Secondary Education or Vocational Education for adolescents suddenly had to take up teaching both youth and adults without adequate training. This is a crucial point that I underline in order to highlight the importance of Teacher Education. And the other inter-related point is the PROEJA curriculum. In the CEFETs, similarly to the abovementioned issue with teachers, due to urgency, there was a direct transposition of the curriculum of Integrated Upper Secondary Education for PROEJA, which is not yet consolidated, and this curriculum was applied to adolescents. The scale of the transposition was reduced, since the course load is significantly lighter than PROEJA's. The rush in order to meet a recurrent demand of the population is certainly causing damage that can undermine the possibility of PROEJA becoming a government policy. I did a survey on the situation of PROEJA using a Federal Network database, and found classes that began with 30 students in the second semester of 2006 but had only one or two students in the second semester of 2008, not to mention the classes that had already been cancelled. I highlight that I consider the dropout concept inadequate for young individuals and adults who have returned to school and drop out again due to school flaws or problems related to their own life conditions.

That reinforces the value of the following dimensions: the political and pedagogical project, a regular teaching staff with adequate training, funding, and infrastructure (the latter is a result of the previous ones). One cannot develop an integrated Upper Secondary Education with an infrastructure that was previously unable to meet the needs of Vocational Education as part of the functions of the school.

Finally, I highlight that the situation is preoccupying, which reinforces the need to consolidate a concept; to build a political and pedagogical project; to have a quality regular staff of teachers, along with an adequate training policy and to secure funding and infrastructure, taking steps towards the institutionalization of integrated Upper Secondary Education as a public educational policy.

Discussion: Vocational Training and General Education

José Antônio Küller (Curriculum Expert) – The question refers to the sequence of steps for the organization of the curricula, starting from the Vocational Profile at the end of the course. When we speak of Vocational Profile, we generally understand it as a profile of some well-defined occupation or profession. I do not know if this applies to integrated Upper Secondary Education. The idea of a profession is perhaps more interesting within the scope of Upper Secondary Education integrated to Vocational Education. I recall the work of Amin and his account of the experience in Santa Catarina, with the school that chose the course of Technician in Hotel Administration. In reality, they used a Tourism curriculum, which was much broader. It seemed to me that the most adequate thing for that city was a vocational course in Tourism, thus encompassing more elements, as it would allow former students to move through all areas of Tourism, and a wider lifespan to that curriculum, without necessarily ensuing specialization in one occupation. To what extent is the profile linked to the professional?

Francisco Cordão (CEB/CNE) – I agree with Küller and maybe I should have simply used the expression Conclusion Profile, without the emphasis on the "vocational" element. It would then be broader, including the vocational element.

Jarbas Novelino Barato (Expert in Teacher Education) – I would like to propose a few corrections and questions in relation to the two presentations. First correction: Cordão, like many others, is still working with the dichotomy between knowledge and skills, and, in a certain way, is still subordinating the skills to a knowledge category. This is the prevailing epistemological view – a Cartesian view. I suggest that Cordão should attempt to re-discuss the contents of knowledge in education in order to break out of this subordination of skills to knowledge, so that skills cease to be seen as something other than knowledge.

I was disquieted by some comments on subsequent Upper Secondary Education and PROEJA in terms of education opportunities for adults. Subsequent Upper Secondary Education requires that the person has completed Upper Secondary Education; in some situations of life, this requirement creates a barrier for the young and adult worker. He or she will only be able to receive Vocational Education if he or she has already completed Upper Secondary Education. A part of this vocational path is linked to the biography of the worker and to the possibilities that he or she had of receiving education. If the legislation is not flexible, experienced workers will be deprived of educational possibilities, as they will first need to meet the formal schooling prerequisites at the notary's office, instead of having their life stories taken into account. It is all very well to make demands in the name of integration, but, at the same time, these demands do not take into account the concrete life conditions of the worker.

I remember a famous Expert Opinion issued by the State Council of Education of São Paulo. It dealt with a request issued by workers of the city of Limeira who were students at a former fast-track course, and who worked in a system of variable shifts. The union proposed a fast-track course without a regular schedule, thus allowing workers to study in spite of the monthly changes in their time-shifts. At first, the State Council of Education did not accept the proposal of a flexible schedule. The request ended up being examined in the light of the interests of the workers, thanks to the efforts of one of the counselors, Prof. Amin Aur, who is present here.

I have an aversion for the word (and for the concept of) competence, but I will not discuss it. In cases of recognition of competence for those who have worked years and years (as in the abovementioned example of the hospital), the possibility of evaluating the competence, the mastery of techniques, is referred to. But the process of evaluation ends up being focused on something that they call knowledge. And the candidate ends up having to take a traditional exam, irrespective of his or her capacity to perform basic nursing techniques. It is said that he or she can do it, but has no knowledge. The interpretation is as such because the evaluation is not well done, since, in reality, technique is about knowing how to do something, and this "doing something" is embedded in the understanding (and knowledge) of doing it. What happens is that many people who completely master the technique are incapable of talking about it. This circumstance

does not mean a lack of mastery over content, but only the absence of discursive ability with regard to one's own conscious actions.

All this is connected to a question of epistemological understanding, of grounding for what "knowing" is. This worries me a bit because it is yet another way of punishing workers. For instance, an individual knows how to apply an intravenous injection, but does not know how to explain it in three lines, according to a hypothetical evaluation standard. In spite of that, I would still get the injection from him, instead of getting it with another person who knows how to explain it, but has no skill whatsoever in applying the injection. The epistemological issue ends up endorsing a particular type of consideration of the educators – who influence government policies with good intentions, but ignore the knowledge that a worker already has.

At a certain point, Dante made a remark about the craft-schools in Brazil, and it seemed to me that he pictured them as something marginal, non-institutional and without significant formative value. I believe this is a mistake from the standpoint of the history of Vocational Education. Furthermore, ignoring the craft schools reinforces views that resemble old categories of Sociology of Labour, which appreciate dead work more than living work. What happened with the craft schools and their prohibition in Brazil, as well as with the prejudice they suffered, are important questions to be considered regarding the history of Vocational Training in our country.

Finally, in relation to Dante's words, there seems to be a residue of CEFET corporatism in relation to PROEJA. Regarding dropouts in PROEJA, it is evident that the phenomenon exists, but it is still not clear why it exists. I do not believe it is because they are adults and because it is PROEJA. But it would be beneficial if we could find out why. During an experience I had the opportunity to participate in, one of the causes of dropout in Vocational Training courses for adults was the quality of the education provided. Another likely cause, which was also present in experiences that I have monitored, is lack of flexibility in the provision of education.

Dante Moura (IFECT-RN) – I have presented two hypotheses to explain dropouts: inadequate training of the teachers towards working with students without knowing their specificities, and also an inadequate pedagogical project, developed through a linear transposition of integrated Upper Secondary Education for adolescents.

José Vitório Sacilotto (CPS-SP) – Speaking of funding and diversity in provision, I believe that it is necessary to create a legal framework allowing

the municipalities to intervene more concretely in Vocational Education and Upper Secondary Education. Nowadays, both Vocational Education and Upper Secondary Education are in the state sphere, and the municipalities find it difficult to invest in these alternatives, if they consider them necessary. I am concerned with categories such as Work, Science, Technology, and Culture, because while we are very good in terms of discourse, we are not able to explain to a teacher how it concretely applies in the classroom, and how the student learns and apprehends the articulation of such categories. I reaffirm the need to promote plurality, along with a diversified array of curriculum proposals and methodological approaches, so that they can be discussed.

I have two other suggestions. We talked about the teachers but we forgot to mention all the other professionals who work at the school, starting with the directors, but not only restricted to them. I also believe that it is necessary to dare a bit more in terms of possibilities of integration. For instance, why not integrate attendance courses and distance courses?

Carlos Artexes (SEB/MEC) – The first dispute in the educational field is that of meaning, because when one forgets meaning, one forgets the origin of the processes. Meaning plays a foundational role in what we do. I believe it is very healthy for us to dispute the meaning of things. And not just the meaning of integrated Upper Secondary Education – in truth, an entire chain of meanings is at stake here.

Foremost, there is the debate on what Vocational Education really is. We may find it simple, but the concept of Vocational Education itself can have many interpretations and is contradictory: for instance, the CNE recognizes that Higher Education has a vocational identity because we train professionals in Higher Education. But we are modeling a project of Technical and Vocational Education at Upper Secondary Level that, in a certain way, excludes what is configured in Higher Education – where undergraduate and postgraduate education is considered. As a concept, "Vocational Education" is not clear, no matter how far its programs and actions are delimited. From the standpoint of meaning, it seems that this limitation cannot be overcome, because the dispute lies elsewhere.

The most significant thing here is to grasp how those individuals who act in the field of labour, in the field of training professionals, have approached schooling. In the process of approach between Vocational Training and

schooled education, we can see different types of geneses, and several debates can be seen at the approximation of these geneses that arise from different places with different methodologies.

We have been defending the idea that, when speaking about integrated Upper Secondary Education, we can and must expand its meaning towards a wide-ranging Education perspective, and not only a Vocational Training perspective. This means restoring the Education that was taken from the workers through Act 5692 to the agenda. The approximation between Vocational Education and Basic Education is a movement that arises from Vocational Education. The workers' drive towards Basic Education has shaped integrated *stricto sensu* Upper Secondary Education. This drive is crucial, but it is not enough. Now it is necessary to create a different path, the path of schooling towards *lato sensu* Vocational Training: i.e., Vocational Training as a broader concept in which work is recognized as an educational principle with the contents that the workers need in order to achieve their empowerment, including their insertion in the world of labour. It is a twofold movement that we need to perceive in order to implement the synthesis of the future.

Sometimes, a government policy is thought of as something that hovers above reality, something that can be built without concrete experience. But it doesn't work to have a government policy that is extremely well-designed in all its dimensions and yet lacks dialogue with concrete reality. Experience must configure itself together with the government policy in a constant dialogue. It is the same issue pointed out in the discussions that we have had here about thinking and doing.

The debate on youth and adult education is central for the workers and for the government policy that is being developed by the Ministry of Education. There is a debate involving disqualification of technical training, of Vocational Education articulated with schooling in the YAE modality. I do not wish to discard the possibility of training Secondary Level technicians through YAE. But this possibility requires in-depth assessment because it entails the construction of a different proposal, under much more adverse conditions than those in which a technician is trained within a different situation. What does it mean to have this technical training in two different levels, in two different conditions? It is impossible not to consider these difficulties, also remembering that Vocational Training was recently introduced

to the legal framework. The training of a qualified technician must be preserved as an important victory for the workers and for their Vocational Training, without, however, implying the training of a second-class type of technician.

This is linked to the implementation of PROEJAs at the CEFETs: the federal government policy has induced the delivery of the Program through the Federal Network, which was the only one that the federal government could induce in order to train youth and adults. It took place at a time when the CEFETs were mobilized for an institutional change, in an attempt to take Upper Secondary Level Technical and Vocational Education away from its competence, and to consolidate its position with Higher Education status, including an academic degree, and with another place for the technologists. The government was giving them a new competence, which, in the eyes of many, would come even before the Upper Secondary Level. I am an advocate of Upper Secondary Technical and Vocational Level, I believe that the Federal Network can deliver Higher Education, but its central task is to serve youth. As director of a CEFET at the time, I criticized PROEJA because I did not consider it the central task of the CEFETs, but only an extension. PROEJA's difficulty is the mismatch between the institutional place that the government policy has pointed at, and the place that the institutions were transitioning to.

I defend the position that it is necessary to design a government policy for youth and adults, and this means a clear educational concept with a well-defined institutional place, and in adequate conditions. We are not talking about more buildings, but about organizing a space for the public YAE policy, so that we won't need to "hang" it up anywhere. YAE must have a place of its own, both from the standpoint of educational training and from the institutional standpoint. In the case of PROEJA, the wrong target was hit – although, from my standpoint, it still was the only instance that the federal government had access to in order to induce this policy.

I would like to say a few words about the competencies. I do not consider the concept itself bad. But in all countries, including Latin America's, the pedagogy-of-competencies discourse predominates and seems to be based on an assumption that I find misleading and unsustainable from the epistemological standpoint: the belief that the pedagogy of competencies represents the prospect of overcoming the importance of contents for

education. For a long time, pedagogy has discussed the relationship between contents and methods, and has relativized the exclusive importance of content as a function of the schools. It is neither a characteristic of the pedagogy of competencies, nor is it the only one, or the best one to adopt in order to start overcoming the content bias. Another misleading assumption: collective thought has strengthened the idea that pedagogy of competencies can overcome the curriculum structure – a dangerous idea for the workers' fight for a school whose social function is to secure significant learning for all. Without denying some contributions that the pedagogy of competencies brings, I must still say that it will not be able to deal with these two assumptions.

Dante Moura (IFECT-RN) – Artexes highlights the importance of appreciating concrete experience as a part of the government policy, because a policy cannot be made based on overplanning. I agree with that, and I did not mean to say anything other than that. But I insist that the construction of government policy cannot do without all those dimensions, even though it does dialogue with experience, even controlling whether these concrete experiences correspond to what was considered in the policy design. We live in a country that has historically lacked a planned economy and a strong planning culture, but the planning of these dimensions of government policy is something that must be done without delay.

I disagree that PROEJA has emerged at the wrong place; I believe that it emerged in the wrong way. If the only space that the government had for conducting the activities of PROEJA in a more direct way was the Federal Network, then I think that it was more adequate to start from there indeed, yet in interaction with the systems. I understand that using the Federal Network to act in PROEJA represents a revival of the origins of this network, and that it serves the needs of the Brazilian population. There are more than 30 million young individuals who are 18 years old, or older, but did not complete Basic Education. One must start somewhere, and I do not think that the public network is an inadequate place; I have repeatedly criticized its format, including in a text that I have sent the Secretary after the issuance of the Decree. The criticisms that I presented in that text summarize something that we glimpsed as possible, and is something that is currently happening. In June 2005, an Administrative Order was issued determining that, starting in 2006, 10% of the enrollments in the Federal Network

should correspond to students of the Secondary Level integrated to the YAE modality – something that was totally foreign to the actions of the Federal Network up to then. Evidently, not much could be advanced; there should have been a dialogue process, including a dialogue between the Federal Network and the state systems, as these systems are the ones that have the ability to universalize, to expand the provision. Yet, they were only added in the second decree.

I have a question for Professor Cordão: in the view of CNE, is there *one* Vocational Education and *one* technological education? Or is there a Vocational and Technological Education, that is, an expression that refers to one single type of education? I am still not sure.

Regina Cabral (CEMP-MA) – Let me just comment on the experience of government policy expressed by Dante: if we consider as criteria for a government policy all the items that you mentioned, then we must admit that we have almost no government policy in Brazil. It was important to reflect on the issue of the integration of contents, because it is a hard task and one cannot slip back into what took place with the implementation of Act 5692. Thinking about what everyone has said, if the institutions do not prepare themselves for adequately conducting this integration in order not to neglect the essence of knowledge, of the contents and General Education, there is the risk of falling back into past errors. Such concern must be present in all bodies, above all if we think about the ideal that guides integrated education, namely the ideal of integral education – the education that all Brazilians deserve.

Francisco Cordão (CEB/CNE) – For now I will owe you the debate suggested by Jarbas, but I will attempt to bring it up because it is an important debate and we owe it to ourselves. On the question made by Dante, I find it unnecessary to use the expression "Vocational and Technological Education", but I would feel better if the expression could be "Vocational Education", because it is enough for including all the dimensions, i.e. the qualification, technical and technological dimensions. If one should wish to separate things, then it would be technical and technological. Using the expression "Vocational and Technological Education" would complicate things, as we would then have to do a lot of work on the next normative documents, for all Vocational Education has technical and technological elements of qualification.

Experiences

An Experience of Integrated Upper Secondary Education: the Center of Upper Secondary Education and Vocational Education (*Centro de Ensino Médio e Educação Profissional* – CEMP)

Commentator: Regina Cabral[50]

The experience of the Centers of Upper Secondary Education and Vocational Education (CEMP) of the region of Baixada Maranhense started in 2003 with a survey that was undertaken in the entire state of Maranhão, based on a demand of the United Nations Children's Fund (UNICEF) for a project with adolescents and youth. There was funding for projects for youth, and UNICEF sought our NGO *Instituto Formação* in order to develop a proposal.

Before presenting any project, we thought about the need for mapping the fundamental elements for the educational process of youth in our regular education system. We mapped out Upper Secondary Education and Vocational Education in Maranhão, seeking the existing data in the state's education networks. This research considered the data of the secretariats of Education, of the public and private schools, of the S-System in the state, encompassing the study of the Brazilian legislation for Upper Secondary Education and Vocational Education, and also the production potential of the regions of Maranhão. The research made a survey with the students, teachers, school directors, parents and secretaries of education, and organized a series of debates. What afforded it a dynamic character were the seminars organized with the youth, which involved them in a dialogue about the reality of their cities and their dreams in regard to Upper Secondary Level schooling. Based

50. Administrative Coordinator of the Non-Governmental Organization *Instituto Formação – Center of Support to Basic Education,* state of Maranhão.

on the analysis of this set of data and information, a proposal for the courses was outlined with the participation of the adolescents and young adults.

In 2004, the first Center of Upper Secondary Education and Vocational Education was created in the municipality of São Bento, upon the request of the city mayor to *Instituto Formação,* both personally and through the Municipal Secretary of Education. The city hall was building a school facility with municipal funds and intended it to be a different school for Vocational Training of young adults. It then requested from us a pedagogical proposal. Thus the CEMP educational project was born, taking into consideration the research that was made.

In 2005, a second CEMP was created in the neighboring city of Palmeirândia, and in February 2007 there were already seven centers implemented in the area with the lowest Human Development Index (HDI) of the state: the region known as Territory of Baixada – Fields and Lakes of Maranhão [*Campos e Lagos Maranhenses*], which was officially recognized by the Ministry of Agrarian Development (MDA) in 2008. It is important to highlight that the secretaries of Education in all the municipalities where the CEMPs were implemented were articulated in a cluster named Education Portal of Baixada Maranhense, in which each municipality knew what was happening in the others' educational system.

A new educational policy was taking shape on a territorial basis – indeed, a political and pedagogical action with quite an innovative character. For this reason, the category of "territory" takes an appropriate meaning in the context of the experience of implementing the CEMPs: the territory is understood as a space of political, social, scientific, cultural, productive and communicative practices that can be articulated in order to create possibilities of building development alternatives for overcoming inequalities.

Why choose this territory of fields and lakes of Maranhão?

Because it has the lowest Human Development Index (HDI) of the state; because 60% of the territory encompasses rural area, concentrating a significant part of the population of Maranhão, with the particularity of a totally unassisted family-based agriculture; a region without *stimuli*, without support, without advice and preparation for working its own territory, with a large number of young sons and daughters of small farmers who leave their municipalities to work in farms in other states, most of the time in conditions analogous to slavery, as evaluated by the Ministry of Labour; because it is necessary that preparation for work be is aimed at the development of the region.

Curriculum Structure

A CEMP has a three-nuclei structure: Nucleus 1, of General Education (the standard MEC curriculum); Nucleus 2, of Vocational Education; and Nucleus 3, as an incubator of social, economic and cultural production projects.

With Nucleus 1, of General Education, the goal is to secure an expanded knowledge of Natural Sciences, Mathematics, Social Sciences, Codes, Languages, and Popular, Erudite, and Body Movement Arts to students. The areas and subjects encompassed by this nucleus are: Languages and Codes (Portuguese Language, Literature, Art, Foreign Language, Physical Education); Social Sciences (History, Geography, Sociology and Philosophy); and Natural Sciences and Mathematics (Mathematics, Chemistry, Physics and Biology). The references used are those of the national parameters for Upper Secondary Education and the bibliography on the curriculum and contents for these areas at this teaching level. The regular teacher is the main investigator and designer of the curriculum. He or she is oriented and expands his or her knowledge contents towards developing these activities during the construction of the educational project and in the process of qualification, either in regular or distance learning mode.

Nucleus 2 of Vocational Education adopted the principle of horizontally expanding the contents of the vocational courses with subjects that encompass a specific area. The course of Agroecology, for instance, deals with the contents of Horticulture, Aviculture, Aquaculture, Apiculture or Beekeeping, Goat Herding and Product Processing, also addressing theoretical and practical questions regarding the market, local development, commerce and funding.

During the follow up, the idea comes up of conducting a more radical integration of all the contents of these two teaching nuclei. But this will only come to fruition as the teachers are able to incorporate new contents that allow them to experience this integration in their pedagogical practice without impoverishing the contents of the curriculum. Such integration must be shared in each CEMP in the pedagogical planning undertaken with the team of professionals.

Nucleus 3, the Incubator of social, economic and cultural projects, was proposed in the CEMP curriculum as a learning space for the construction of virtuous circles of development in the municipalities encompassed by the

CIP *Jovem Cidadão*[51], an integrated group of projects implemented by *Instituto Formação* in which the CEMP project has been expanding and consolidating itself as a government policy of education for and with youth. The design of the CEMP takes into account how important it is for the adolescents and young adults to learn the contents of General Education and vocational qualification, especially having the opportunity to undertake a vertical projection of knowledge in a particular field with concrete experiences in project making, implementation, production and commerce.

The courses provided by the CEMP are: Agroecology, Nursing, Environmental Management and Sanitation, Computer Sciences, Information and Communication Technology, Community Tourism, and Urbanism. These courses are provided in two formats:

- Three or four years, for students who have completed the eighth grade and will enter (integrated) Upper Secondary Education; and
- One year, or 18 months, for students who have already completed Upper Secondary Education – General Education (subsequent).

The school year has 200 teaching days along 40 weeks, and each week has five school days (when necessary, there are lessons on Saturdays). The shifts range between four and five daily hours, according to the Secretariat of Education of the municipality. The lessons have 45 minutes, and there is one 20-minute break. Also according to the Secretariat of Education, some lessons and activities have a full-time schedule.

Methodological Principles

The Higher Education tripod of teaching, research and extension has been assigned for Upper Secondary Education as an attempt to provide students greater insertion in the process of producing contextualized knowledge, thus securing significant learning and interventions in the community where the students live, building the perspective of their participation in development processes in their municipality and region. Such strategy of curriculum orientation also allows the work with articulated

51. The CIP *Jovem Cidadão* ("Young Citizen") was implemented in 2003 in the territory of Baixada Maranhense under the coordination of *Instituto Formação* in a cooperative action with the secretariats of education, youth organizations and external partners, such as UNICEF, the Kellogg Foundation, Institute Oi Futuro, Caixa, Fifa and UNESCO (the *Criança Esperança* campaign).

axes and the theoretical development of contents and research practices starting in the first year.

At the CEMP spaces, the facilities of telecenters, laboratories and libraries have also been secured, along with education and production units. The telecenters, which were built in the cities supported by CIP *Jovem Cidadão*, are essential spaces for the process of training youths and teachers. There are telecenters with internet access in three CEMPs. One of the priorities in the projects with partnerships has been the implementation of libraries in the schools. According to the courses provided by the CEMP, there are also specific labs for Nursing, Physical and Chemical Analysis, Computer Sciences, Food Technology and Educational Communication.

Systems of follow-up, planning and continuous evaluation have been kept, thus promoting permanent qualification of the teaching staff and of the direction of the CEMPs. Four basic elements are considered for the construction of the educational project:

- Thematic seminars with the students' presence and the participation of teachers, students, the administrative staff, directors and parents;
- Pedagogical follow-up with the presence of the teachers, undertaken by the two nuclei;
- Remote assistance to students using the facilities of the telecenters of Project *Jovem Cidadão* in the municipalities;
- Continuous and context-based evaluation (for diagnosis and planning), on a bi-monthly (to follow up on the evolution and planning) and biannual (to evaluate the school performance) basis through group playing, *Olympic* games and simulated tests;
- Mobilization of educators and students to produce texts, articles and reviews for dissemination in print or through on-line media;

The concept of the management process also deserved special attention, even though it is not yet totally implemented. It is a shared form of management, and is divided into three dimensions: administrative, financial and pedagogical.

The administrative management is based on a new type of educational space with the following characteristics:

- The administrative process is also, and necessarily, pedagogical;
- The administrative staff also plays an educational role in the activities of the school;

- The administrative functions and bureaucratic tasks are integrated to a concept of the school as a permanent space of construction of the educational action undertaken by the educator and by the collectivity.

In the new process of financial management, the following dimensions are highlighted:

- Financial management entails discussing the concept of public asset;
- Management defines an efficacious and efficient use of the resources;
- Management, undertaken with transparency, requires the commitment of all teachers, students and administrative workers with the school and with the community.

In terms of pedagogical management:

- The educational action includes the practices of teaching, research and extension, which must be articulated with the contents of the subjects, and of the curricular and extracurricular activities;
- Significant learning is conceived as the result of the educational action that changes the attitude of learners and educators, producing changes in the school and in the city;
- The process through which learners and educators increase their maturity takes place in different levels and with different practices that may induce the revision of conceptions, concepts, behaviors and priorities.

The actions related to Teacher Education entailed a program of permanent qualification for the CEMP teachers. There are courses for the teachers and technicians in two knowledge levels: general and specific, with moments of attendance and other moments of distance learning. This training encompasses the following elements:

- A module on theoretical and methodological studies, including contents of Philosophy, History, Language and Literature, Mathematics and Art, totaling 150 hours distributed in work units of 30 hours (with the exception of Portuguese Language, which will have a duration of 60 hours);
- A module on theoretical and instrumental studies, including contents of Human Psychology, Teaching Methodologies, Strategies and Didactic Resources, Computer Science, Art, Physical Education and Applied Communication Technologies, totaling 150 hours, distributed in work units of 30 hours;
- Workshops on Reading and Mathematics;

- Seminars for the principal office and administrative staff, technicians and parents;
- Use of the library, computer labs and telecenters for permanent training.

The expansion of the evaluative processes within the CEMPs includes the institutional dimension and school performance as inseparable areas; for this reason, the construction of the educational project is permanent. The evaluation process understands the integrative dynamic between teaching, research and extension as a continuous pedagogical act, requiring new attitudes and new practices in the daily life of the school by the teachers and students, and for this reason it never ends.

The reference category used in the construction of the educational project and of the curriculum of the CEMPs is that of local development. Through the results that have been reached along the five-year experience of implementation, it became evident and understood that the CEMPs are development points still in consolidation at the Territory of the Fields and Lakes of Maranhão. This happens because they have become hubs in the dissemination of knowledge, which is immediately applied, expanding potentials that may propel development in the region.

There is fairly concrete evidence that these centers are starting to spin the wheel of the local economy circuits, above all on account of the implementation of the courses on Agroecology and Computer Science. Through the Incubator of productive projects, over 90 youth projects have been already supported: two agro-industries (before them, there was none in the region) and dozens of productive units in properties of family producers and settlements, among others. The 13 telecenters and 107 internet terminals implemented at Baixada under the coordination of *Instituto Formação,* and the Computer and ICT courses of the CEMPs allow the young students to develop hundreds of products – from animations, spots and videos to the construction of websites. All this is still embryonic, but there is a great potential for working if the necessary support is provided, thus increasing the potential development of the rural and urban areas of the municipalities.

In late 2008, *Instituto Formação* and the Foundation of Support to Research and to the Scientific and Technological Development of Maranhão (FAPEMA) started a partnership to create a technology development hub, in order to create production alternatives that generate income for youth of the Baixada region, including Computer Science and ICT students and former

students. The partnership, however, did not materialize due to the change of government. Students who recently graduated at the CEMPs are creating the ServLagos, an association of services by former students who became technicians, in order to ensure their insertion in the job market within a different regime of contracts and negotiations with the productive sectors of the cities.

A reflection: it is necessary to highlight the extreme need for real articulation between this municipality, the state and the Federal Government in order to secure the provision of Upper Secondary Education in its various modalities, in a cooperation regime among the federative members. Youth must be the focus of the public policy, and this must be an action by the Brazilian Government. The Brazilian Government is materialized by means of three members of the federation, including an effective participation by civil society. This context appears to favor the securing of the provision by either one or another such member, maintaining a national standard of quality for public education. Therefore, there must be some mechanism able to unify this provision and its quality control.

When thinking about the Vocational Training of youth provided in each city, many of which with an either distant or absent state body of education, it is easier to articulate the practice of the students of vocational courses with the support of the municipal secretariats (such as the secretariats of Agriculture, Health, Culture, Environment, and Administration) that deal directly with the potential internship sites and suffer from a permanent lack of professionals able to make the development of the cities more dynamic.

When well-oriented, the students of Agroecology, Food Technology, Nursing, Computer Science, Environmental Management, Constructions and Electricity have created a strong movement in rural areas of Brazil.

This presentation focused on the CEMPs of Baixada Maranhense, located in territories with low human development indexes – which does not mean that the educational project they adopted is not adequate for the schools or municipalities located in more urban regions.

Discussion: CEMPs, Development and Sustainability

Marilza Regattieri (UNESCO) – Regina, why opt for Integrated Upper Secondary Education? And how does this three nuclei construction take place? You say that the nucleus of general training follows the definitions of the National Curriculum Guidelines, but then there is a nucleus of Vocational Education and yet another nucleus. To me, it seemed that the integrated concept became clearer when the thematic axes that structure Vocational Education were presented.

José Vitório Sacilotto (CPS-SP) – Apparently, there is an Upper Secondary Education curriculum that is not integrated with the Vocational curriculum. Is that correct?

Gabriel Grabowski (Expert in Funding) – Who funds the sustainability of the project?

Regina Cabral (CEMP-MA) – Let me start with the funding. The sustainability is quite simple: it is enough that the Upper Secondary Education funds go to the municipality in a cooperative action between the Federal Government, the State and the municipality. If well applied, the existing resources stemming from student enrollment fees are sufficient to support the CEMPs of Baixada. The municipalities already do this with slightly less resources than the Development Fund for Basic Education (FUNDEB).

The FUNDEB and other Federal Government resources would be enough to support integrated Upper Secondary Education in these municipalities. The resources are enough not only to maintain, but also to improve the ongoing activities. To this end, a partnership would be necessary so that the State and the Federal Government could transfer funds stemming from enrollment fees either to municipalities or schools. All the State has to do is not leave municipalities begging due to competition pure and simple, due to the dispute for who "owns" Upper Secondary Education, when the focus must be the student. It is necessary to overcome this competition. The States must see public education as a duty of the Brazilian Government and raise up students as top priority. This must be the focus of the educational policy.

Until 2007, none of the CEMPs (which are Upper Secondary Education schools) had received State funding. The municipalities are the ones that maintain them. The enrollments are computed in the Census, but the municipality does not receive the corresponding resources. The partners guarantee internships, Teacher Education, the incubator, laboratories,

pedagogical follow-up, but the funding is provided by the city halls. With FUNDEB resources, things could get much better, and external partners would not even be necessary.

There are two State-dependent CEMPs that are not in good conditions. In a certain way, they are worse off because the teachers were not prepared to take up the educational project of these schools. At the CEMP of Matinha, which depends on the State, the students have protested and requested that the school must return to the way it was before. This is quite contradictory, as the "before" was when the municipality opened and supported the CEMP with its own resources.

I think that sometimes the partnership between the municipality and the state doesn't work because it is more difficult for the state – a better prepared instance with a legal authority to provide Upper Secondary Education – not to be the thinker, the mentor of the idea. Many times, the states seek experiences that were successful in other countries and do not recognize the successful experiences of one's own country, or the ideas developed in the same state, and in the region. Why is it that only the states and the Federal Government must come up with ideas for projects and proposals? Should the municipalities not think?

The concentration of thinkers and good managers in some niches, some spaces, some centers, and some members of the federation is a problem. In such a large country with a focus (at least that is where it should be) on the student, the youth, the development of the city, it is necessary to have many competent thinkers, executors and managers distributed around the entire territory. And it is necessary to have a national policy able to universalize quality, to follow up on the fulfillment of the law, and to secure decent salaries to the teachers and other professionals. I believe that a broad discussion should be dedicated to the idea of a national Education able to secure the provision with quality for all, shared by the federative members in a solidary and responsible way. Besides, one cannot exclude civil society from a State policy.

Regarding the question of the educational project: when the mayor approached us in 2003, still during the research stage, we had already been working towards a set of actions aimed at the development of the territory, and, because of that, Upper Secondary Education was not envisioned as taking up a college-prep role. In spite of the fact that we defend General

Education and Scientific Education, we thought about a type of Education aimed at developing the productive potential of the region, and able to meet the wishes of youth in relation to the courses they take.

In 2004, year of the new act on integrated Upper Secondary Education, we undertook a joint construction of the CEMP project of São Bento, considering both the existing potential of Baixada and the choices of the youth. The Baixada is a very beautiful area with fields, lakes and permanent rivers, but it does lack the structure for conventional tourism. Yet, it is possible to create interesting routes for Ecotourism, Rural Tourism and Community Tourism. The youth chose courses on Computer Science, Information and Communication Technology, and Nursing. So we discussed with them the importance of courses aimed at the potential of that territory (such as Agroecology and Community Tourism), stimulating them to look at the place where they live, and to realize the possibilities of development they can help propel if only they acquired the necessary knowledge for it. How to transform a roving, rustic production based on yearly clearings done by burning into an organic plantation? How to teach the fishermen, who, at Baixada, can only fish in the winter during the flood, to retain water in permanent weirs? How to preserve the riparian areas of the rivers? How to restart vegetable crops? How to irrigate? How to produce animal feed? How to modernize commerce by using computers? How to create useful software for the development of the Baixada region?

We went on to design the project from two starting points: the demand of the youth and the productive potential of the region. We decided to do so because we did not want to design an Upper Secondary Education proposal solely from a General Education standpoint, which, albeit fundamental, is not sufficient for a population that does not go to college and must start working at an early age. Nowadays, for instance, the Baixada is the region in the countryside of Maranhão with the highest level of digital inclusion. The entryway for such inclusion consists of the telecenters and the CEMPs, equipped with free Linux software. The youngsters are producing websites, animations, films and so on.

The CEMP curriculum, pointedly, is not fully integrated, but that is because the two nuclei – general and vocational – have not been radically integrated within single classes: the General Education set of classes was maintained with the simple addition of Vocational Education classes,

resulting in an extended hour load. Integration takes place in the researches and practices of internship and extension. Such was the chosen alternative because the fact that the teachers were not yet prepared for an interdisciplinary integration process able to secure the quality of the contents that they taught was taken into consideration.

Integration must be an initiative from the school; otherwise it risks becoming a generative theme. Many people wrongly take an interdisciplinary approach for a generative theme; when a generative theme is adopted, it can produce significant impoverishment of the curriculum. The desired outcome is that young individuals really learn about science, new technologies and how to apply them towards local development. We could integrate the curriculum, because there was already a practical basis of discussion and experimentation in interdisciplinary contents, but this is not done in an office, as it is very complex. It must be done within the school, along with all professionals involved.

In spite of that, through the permanent training process that has been in course with the teachers, the General Education teacher is working the contents of his or her subject (History, Geography, and Mathematics) aimed at the courses. In the Agroecology course, for instance, Mathematics also focuses on the necessary calculations at the property of the farm producer; the Computer course, in turn, focuses on what the student needs in terms of software development. The deeper the students go in their work with computers, the more they understand that they also need more advanced knowledge of mathematics.

The course planning is collective among the teachers of the general and vocational nuclei: integration takes place while they conduct an exhaustive study of the curriculum; the General Education teacher takes part in the research and study of the curriculum while he or she also works with the subjects of the vocational nucleus.

The two dimensions did not merge because that would bring about two difficult processes – a new project and an integrated curriculum – in a geographic area that is extremely precarious in terms of Teacher Education, and there was a concern that the existing education that is provided would not be impoverished. Full integration is a process to be undertaken in the future, when there are more teachers with an academic degree, or engineers to work with Agroecology, and better qualified professionals to work with

computers; or when more experience and practice with the educational project can be gathered. Then it will be possible to advance and improve. The main concern is not the impoverishment the curriculum: it is not about providing Vocational Education for the poor, but, instead, it is about the richest experience that the teachers can possibly offer.

At the CEMPs that have a building of their own, such as in the cities of Palmeirândia and São Bento, in 2008, the dropout rate was less than 5%. In 2009, it is expected that the CEMP of São Bento will have approximately 1500 students. At the CEMPs without their own building, such as that of the city of Matinha, which have moved into the care of the state, the dropout rate has increased, because the new permanent teachers were not acquainted with the educational project of the CEMPs, the state school project was not geared towards Agroecology, and the course was distributed into the classrooms of three different schools, among other differences – and the students then started to lose focus.

Vocational Training Strategies in Latin America[52]

Speaker: Claudia Jacinto[53]

I intend to reflect about work contents in their relation with General Secondary Education – called Upper Secondary Education in Brazil – based on some experiences taking place in countries of Latin America. I will not deal, therefore, with work contents regarding Vocational Education, but I shall address some recent initiatives that indicate shifts in the way those sets of contents are designed, thus re-discussing their role in Secondary Schools.

I will present experiences in Colombia, Chile, Argentina and Mexico. Those are countries that we have been studying at the Latin American Network of Education, Work and Social Insertion (redEtis), revisiting academic discussions and some initiatives by government policies that were implemented in these countries. I will deliver my presentation in two parts: first, a more theoretical discussion on how work contents are approached in ministry-level documents and documents of other organizations; and secondly, some concrete models yielded by those experiences.

Commonly, the documents and the legislation on the educational reforms of the 1990s emphasized the idea that the Secondary Level should offer General Education to students. There was a consensus that the general and cross-sectional contents and competencies – useful for any daily life situation, for citizenship and for work – made up the best education. Nothing better than knowing language and mathematics for finding a job

52. Translation Note (TN): In this chapter, the original version in Portuguese uses the term *Vocational Training* as *Training for Work*. According to UNESCO Thesaurus *Vocational Training* is defined as: Training aiming at providing the skills, knowledge and attitudes required for employment in a particular occupation, or group of related occupations, in any field of economic activity (UNESCO Thesaurus available at: <http://databases.unesco.org/thesaurus/>.

53. Coordinator of the Latin American Network of Education, Work and Social Insertion (redEtis), of UNESCO's International Institute for Educational Planning (IIPE), in Argentina.

and for the future prospects of youth, an idea that was linked both to the broad transformations experienced by the organization of work, and to the difficulties, uncertainties, inequalities and distinctions in terms of opportunities of insertion faced by youth. As a rule, the documents underlined that there was no distinction between an education for citizenship and an education for work.

In recent years, even though this general consensus has been strengthened, it has undergone a reformulation based essentially on two arguments. The first one is that the opposition between General Education and Specialized Education has established a false debate both from the standpoint of production of knowledge and from the pedagogical standpoint. Such tension has followed most of the dual educational systems in the developing countries, and has been criticized – just as this opposition has led to the development of separated systems for General and Vocational Education. Such idea of a General Education (or what we could call preparation for work at Upper Secondary Education) resulted in exceedingly generalist curricula. This is one of the axes of the discussion.

The other reasoning is more institutional than strictly connected to the curricula, and concerns the necessary diversification in order to develop and expand Secondary Education to reach the diversity of audiences that we find at schools. The discussion is linked to the fact that in the 2000s, Latin America faced some stagnation in the expansion of Secondary Education, a fact that has been taking place both in Brazil and in other countries of the region. Such stagnation and, in certain cases, backlash of Secondary Education has something to do with more work opportunities for certain adolescents. What we face today is the big challenge of the expansion of secondary schooling and of reviewing the curriculum and institutional models. This problem is quite widespread in the region.

More recent documents of the countries mentioned above particularly emphasize work as a broad axis. These texts do not propose a vocational type of education, but a look upon work in all its extension, from the epistemological bases to its practical applications: the changes in the work processes (scientific, ethical-political and social-historical aspects); social relations regarding the world of labour (regulations, segmentations in the job market and dignified work); in other words, in a very broad way, a new look upon work as a development sphere for countries and individuals.

In short, the defense that work contents must "enter" Secondary Education brings the broad and complex links between Education, Science and Technology, production and work to the agenda. It thereby raises the following question: which work contents must be part of General Secondary Education?

In those documents, more specific arguments can also be found regarding the following needs:

- Promoting the development of "general and specific work contents and competencies in Secondary Education" as parts of a Comprehensive Education, that is, to rescue the idea that Comprehensive Education contains general and specific work contents;
- Integrating theoretical and technological contents, and technical skills;
- Introducing a "culture of labour" in the school, with all the ethical values that it implies;
- Highlighting the school's guidance function in relation to future education and work alternatives for youth;
- Overcoming the idea that education for work at Upper Secondary Level only concerns technical education.

Those are some of the concepts expressed in several documents analyzed – which, however, indicate an incipient trend that is not yet consolidated. There are few concrete advancements and measures, and, in many countries, the idea still persists that education for work is linked to technical education, a reasoning that appears to side with more traditional or historical views.

The reform and expansion of Upper Secondary Education in the 1990s was followed by a good deal of discussions on *what is the purpose of Upper Secondary Education.* Nowadays, the question is still in order, both in terms of development, and when one thinks about secondary school. Youth are the first to ask themselves about such pertinence: in all surveys, they claim that what interests them most in secondary school are their school mates, their friends and their social relations, whereas they question the social role of the school, and the pertinence of what they are learning.

Another position in favor of reformulating secondary schooling is based on equity, on the possibility of more inclusion. There are also proposals associated with a subjective look upon young people, considering them as builders of their own paths. These proposals defend the idea of contributing so that they may develop their tools and become actors of change. These are arguments connected to personal and social development, with an underlying concern about school failure.

The studied experiences reveal two central benchmarks:

- A strongly intentional insertion of work content (and its political, ethical, economic, social, technological and subjective axes) in the school curricula, as an object of knowledge and in the development of contents and competencies; and
- Appealing so that the institutional and curriculum diversification may facilitate access to different options.

In spite of these general trends, not all reformulations are based on similar theoretical foundations. There are some tensions that could fuel big discussions, such as, for instance: what is labour; what world of labour the interventions should be directed to; and whether training must be guided by more complex contents or by competencies – a polemic theme. In Latin America, there are countries where a competency-based formulation proposed by the Ministry of Labour is quite different from that stipulated by the Ministry of Education; within the same country, there are different interpretations about those concepts, and tensions between theoretical approaches. It is discussed whether the focus is the job market or the world of labour; whether we are talking about a job market such as it is, or about an inclusive job market; whether we are training individuals for productive demands or for social demands, or demands of social development, or the demands of youth itself; whether we are implementing collective strategies of inclusive development or personal strategies of productive insertion; whether we are talking about companies, or about the productive world, or about multiple actors.

There are many interpretations within those general trends, and neither all countries, nor all programs see these questions in the same way. A question that could be made is: in the concrete formulations, how different are those tensions in theoretical terms?

Some Experiences

I believe that Colombia is one of the most steadfast countries working on planning. Since 2002, the country has experienced the development of project "Labour competencies, training for work and pertinence of Secondary Education", which aims at securing the learning of general and specific vocational competencies by students of the 10th and 11th grades at public and

private schools by means of agreements among the educational institutions and the entrepreneurial sector. In the reformulation of the curriculum contents for Upper Secondary Education – especially those concerning Vocational Training – this approach is structured by very strong devices: it is Colombia's National Service for Learning (SENA) that follows up on such training and certifies the specific vocational competencies acquired by the students.

Mexico is another country where the reform of the curriculum was based on a focus on competencies. Preparation for labour has been included in Upper Secondary Level through the proposition of Vocational Education for all schools. The new organization of the curriculum has three components: Basic, College Preparatory (college-prep), and Vocational Training, in accordance with the dynamics of the productive sectors and with the norms of vocational competencies. In Mexico, there is a very complex national system of competencies, which has been developed for more than ten years in a regular process of discussions about norms regulating competencies. This process pointed to the revision of some failed experiences and proposed the introduction of Vocational Training for all of Upper Secondary Education.

In the researched countries, the introduction of labour contents in Secondary School is materialized, in short, through four central lines or concrete measures: internships and vocational practices, devices of social and educational orientation, school-based productive enterprises (which we call "entrepreneurship"), and merging with Vocational Training.

Internships: Bridges with the World of Labour

In the documents that deal with internships, it is difficult to find a policy with a general reach, and for this reason we have few elements for concrete evaluation. Colombia is probably the country with the most concrete data within this policy's span.

It can be said that, in general terms, the organization of internships is guided by a twofold look: the internships represent benefits for the schools, as the schools are drawn closer to the world of labour; and benefits for the students, because it provides them with a type of education that can hardly be reproduced in the school context, with the integration of theoretical and practical contents, as well as an attitude and socially related contents linked

to work. An emphasis is placed on carrying out the internships in a real-life context, that is, in the companies.

The more recent legislation emphasizes the need for securing the educational character of the internships, as their abusive use in Latin America may turn them into a critical experience. In the cases of Argentina, Chile and Uruguay, the acts and provisions that regulate internships are linked to Vocational Education; one can find schools that develop internships within General Secondary Education, but the legislation is aimed at Vocational Education. In the cases of Brazil and Colombia, there is an innovation with the internships in multiple spaces not linked to companies, but social spaces or spaces of public bodies, in a very broad sense.

There are several problems and challenges in regard to internships. One of them is the substitution of workers for interns, which takes place above all in countries with massive internship systems. This happens mostly in small and medium companies, leading the workers' unions to take a position against internships – this becomes a complex problem when internships are not part of a country's culture. Other problems concern securing formative contents, clarity on the internship plan and the need for better institutional articulation: who organizes, who monitors, who controls, and who takes care of the formative contents – the school or the company?

A good internship means something different for a company, a school and the young individual. In some cases, the internship results in work overload for the teachers and for the schools. In other cases, as it is an activity valued by youth and by their families, the schools end up accepting any type of alternative for the internships. Achieving articulation with the curriculum is the key issue, and the experiences that we have studied demonstrate that this does not take place effectively. Only in some cases it is possible, for instance, for the internship to become an object of evaluation within the school curriculum.

Socioeducational Guidance

Nowadays, many discussions on ways of expanding Upper Secondary Education deal with a school that must follow up on and guide the youth. Paradoxically, this tutoring function did not include vocational guidance in the first years of discussion about the reformulation of Secondary School.

There are interesting experiences in course, some of them oriented by the ILO, and they assign a more socioeducational and work-related character to the guidance that is offered students in the final segment of Upper Secondary Education – for instance, with the introduction of a module or with the organization of workshops. There are many institutional formats for these initiatives, which, much beyond vocational guidance, aim at providing the tools so that youth may build educational and work strategies based on their own interests and personal potentials. In short, they seek to allow a better understanding of social and work context, and of post-Upper Secondary Education; to establish relations among personal interests, the several work options and educational alternatives and information on the rights and duties of the workers, allowing the youth to make a critical reflection of the world of labour. Many of these initiatives are due to the activities of NGOs that work with non-formal education, which have created interesting materials in this segment.

In Chile, the Program *Chilecalifica* develops, among several active lines, a line of activities aimed at vocational and professional guidance for Upper Secondary Education. Since 2003, the program has launched calls for funding Secondary School projects that connect their educational provision with the information available in the job market, and which are willing to articulate themselves to local strategic networks. It is not merely about the development of courses for the youth at the school space; the goal is to promote the insertion of the school in local networks. It is a very interesting experience, and there is a lot of information about it on the internet.

In Colombia, there is also an interesting approach with the introduction, at Secondary Level, of a broad module named "labour culture". But so far, there is no available information about it.

Another format proposes Upper Secondary Education with an emphasis on training for work, somewhat in the line of integrated training. This type of format is based on reasons regarding the motivation of the youth themselves, the improvement of students with difficulties, the continuity of studies and the integration between theoretical, technological and practical contents. There is a debate about when the best time to introduce this Vocational Education is, above all in the countries where Secondary Education is divided into two moments: lower and upper. It is debated whether some contents of Vocational Training should be introduced or not in Lower Secondary Education for individuals between 12 and 13 years of age.

Some tentative programs offer an Upper Secondary Education along with Vocational Training oriented policy, as exemplified by *Brasil Profissionalizado*. There are some forerunners, such as the "network of schools – Faith and Happiness", the Upper Secondary Education distance schools of Mexico[54], and several experiences by NGOs – such as one that exists in Argentina. Those are different experiences, but small-sized ones, which have the prospect of introducing Vocational Education in articulation with general Upper Secondary Education. They are institutional initiatives, but they are not government policies.

Those initiatives present several challenges: how to achieve good quality Vocational Training? Some international researches discuss what kind of Vocational Training can be taught, as it is presently quite brief and the institutional conditions are not present. There are, for instance, some countries in Africa that do a critical evaluation of the convenience of such training given its lack of quality. Several other issues are discussed in relation to funding, equipment, materials, integration of curricula and profiles, as well as Teacher Education.

Entrepreneurial Competencies

In the analyzed experiences, two ways of developing entrepreneurial youth competencies were observed: one through productive projects at school in order to develop enterprises; and another in which the entrepreneurial capacity is conceived as a cross-sectional competence: the idea of developing in the young individuals an entrepreneurial attitude similar to the attitude linked to citizenship; in other words, to stimulate youth to undertake enterprises in social and citizen projects. There are several proposals and many documents on work methodologies for the theme, along with numerous experiences and abundant data, including in the web pages of the International Labour Organization (ILO) and the Organization of Ibero-American States (OEI).

In a general way, the entrepreneurial training takes place through two strategies: one strategy of simulating businesses, and another – more

54. In Mexico, there are an estimated 16 thousand tele-secondary schools in which the lessons are transmitted daily by satellite to classrooms where a teacher distributes the course books and provides additional clarifications to the young students.

concrete – of developing cases. In Colombia, there is a cross-sectional class of entrepreneurship at all educational levels; in Argentina, the Province of Rio Negro also develops a class on entrepreneurship.

Several questions involved in this type of experience are pointed at by the studies, such as the lack of synchronicity with the local development and problems, the goals of the teachers, and the need for creating institutional committees for its successful existence. Some of these experiences emerge outside the school, with other actors, and the schools resist them because they do not understand the need for developing them, and, above all, because they imply a work overload.

In the projects more directly linked to production, there is constant tension between the productive and the educational logic. In all experiences of internship and productive projects, an important problem is how to make sure all the young individuals can take part in those initiatives. Several companies have refused to offer internship for some students, because not all of them are apt to meet the quality demands of the productive logic. There is permanent tension between the ideal of equity, which aims at providing access to contents that are relevant for all, and the productivity urge, since production is based on another rhythm and on another work organization.

Even outside the framework of "fostering the entrepreneurial culture", we find several examples of pedagogical strategies ranging from practice to theory, and deal with the integration of contents, as well as with projects that propose an active approach based on real contexts.

Conclusions

In short, all those trends indicate that the reformulation of the place for preparing the students for work in Upper Secondary Education emerges with the following intentions:

- To overcome the dichotomy between "general and specific" by proposing the integration of contents;
- To overcome the isolation of the school and of its context, in order to include the community in the school;
- To take into consideration the diversity of the culture, motivations and interests of youth;
- To consider the inequalities and living conditions of the families; and

- To recognize and strengthen the role of the school in their development. Those trends materialize into initiatives such as:
- The broad and explicit introduction of labour contents in the general laws of Education or Upper Secondary Education, in the cases of Mexico, Colombia and Brazil;
- The enactment of specific acts or decrees in order to organize and safeguard the pedagogical goals of some provisions, such as, for instance, the internships;
- The existence of several projects of specific funding, such as *Brasil Profissionalizado*; and
- The provision of guidance to the schools, so that they may develop those projects.

There are many materials dealing with those questions – some of them were developed by international organizations. The European experience, for instance, has several lines for developing Vocational Training within Upper Secondary School, both from the standpoint of entrepreneurship and of guidance, as well as the so-called "second-chance schools", which introduce new functions in the school.

My final remarks are the indications of some challenges that the new conceptualization of training for work proposes to ensure to adequate quality and organization of Upper Secondary Education, stressing once again that anything done without quality loses its meaning:

- Supporting the education and training policies;
- Proposing and developing the articulation of institutions and curricula;
- Providing adequate resources for Teacher Education;
- Redistributing functions and tasks;
- Creating new functions for the school – a fundamental issue;
- Establishing dialogues and partnerships with local institutions;
- Undertaking adequate monitoring and evaluation activities.

Another challenge – not as present in the documents we analyzed – is the idea of articulating such training with the concept of lifelong learning throughout the educational and vocational path of young students. This idea is less frequently mentioned, but it must be emphasized through proposals of multiple formal and non-formal sources.

Discussion: Experiences and Trends in Vocational Training

Gabriel Grabowski (Expert in Funding) – Claudia, you spoke about a "labour culture", and what I was able to grasp from it – as a central part of integrated teaching: a pedagogical proposal of Comprehensive Education for the student, in all his or her dimensions – only appears in the end, more as an articulation, and not as an integration. What are the implications of developing a "labour culture", as you mentioned? And what is it truly? In those experiences of a comprehensive and humanistic education, does the epistemological question not appear?

Claudia Jacinto (IIPE/UNESCO) – The expression "labour culture" appeared in two documents: in Colombia, as well as in the province of Buenos Aires, Argentina; it was particularly linked to the idea of introducing a focus on labour in the entirety of Secondary School. But the emphases are a bit different. Both share the idea of connections between the production of theoretical knowledge, technological knowledge and practical contents – the idea of technology as a bridge between the theoretical and practical dimensions, and the divided approach to these contents. However, the substantiation of the idea turns out slightly different.

In the Colombian documents, there are many references to the new trends; not so much on the production of knowledge, but in relation to the new demands of the job market, indicating a distance between the school and the job market. In those documents, the culture of work appears in a very simple way as an approximation of the youth profile to the job market. In the case of the province of Buenos Aires, the theme of labour culture appears more closely connected to the recovery of an ethic that may bring order to work, a formulation produced by the Peronist government with a strong concept of ethics at work. But in the case of Buenos Aires, the pedagogical formulation has not advanced so much in terms of the curricula.

In the studied countries, the thorough pedagogical proposal does not have the same strength of the Integrated Upper Secondary Education of Brazil. What we saw were a few experiences by NGOs linking school training for work and citizenship, such as initiatives in the rural area supported by an international cooperation agency from Switzerland. This agency works intensely with the idea of pertinence around three axes: articulation with the job market, youth demands and local development. This approach of a more thorough training is stronger in international cooperation projects such as the ones supported by the ILO, and in others linked to tourism, for instance.

At this point, it is necessary to highlight a crucial problem, namely the cost of those experiences. At the previous CEMP-presentation, I was left with the desire to inquire about it. How to secure funding for models that are very complex? The political decision is what defines how to match universal policies and the specific, focused and strong policies of the poorest sectors. In spite of many mistakes in the implementation of policies, there is a funding problem that becomes a critical aspect, and, at times, an obstacle to the policy.

There is a small initiative in the city of Buenos Aires within so-called "re-insertion schools", which are alternative institutions for marginalized young individuals who have abandoned regular secondary school and adult school. They are six small centers in which many resources have been invested for a different curriculum format, and which are making advancements, albeit slowly. It is more difficult, however, to observe general policies formulated for this more comprehensive format.

Roberto da Cruz Melo (SEC-BA) – I'd like you to speak further about entrepreneurship as a class within Colombia's Basic Education curriculum.

Claudia Jacinto (IIPE/UNESCO) – Colombia is a country with a strong development in what could be called entrepreneurial education, which was implemented many years ago. It is a country where the enterprises and small businesses make up a large part of the productive world, of the world of labour. The Colombian SENA, which developed in the same fashion as Brazil's National Service of Commercial Learning (SENAC) and National Service of Industrial Learning (SENAI), was a pioneer in Latin America. It was the first Vocational Education institution that, in the 1960s, not only dedicated itself to work with cutting-edge sectors, but also with poor sectors. Back then, it already worked in the poor neighborhoods creating centers where the installed equipment was used to manufacture products, where actions were developed to train entrepreneurs with a focus on the management of enterprises, technical aspects and follow-up. There was also a lot of funding for micro-projects. We are talking about 40 years dedicated to Vocational Training in this segment; therefore, there are contents and materials aplenty. During the past years, there was the implementation of a curriculum proposal starting in eighth grade, with two weekly hours dedicated to the development of small projects in the neighborhood, for instance. The project is always articulated with another curriculum area. In other words, training

for work is present at different moments of the school path, connected with certain knowledge areas, and only in the last year of Upper Secondary Education it becomes a product-oriented project. The idea is to develop a more general entrepreneurial capacity.

Irailton Lima (SEE-AC) – Claudia, you said that one of the challenges blocking the way of integration is that the school must take a position in order to understand its role in local development. How does this process take place in the local systems? What tools and mechanisms do the schools have in order to leave their isolation and place themselves in the context of the communities in which they are inserted? I understand that the tensions among those concepts, expressed in the distinctions "knowledge *versus* competencies", "market *versus* world of labour" are more political than theoretical. How is all this addressed in the cases of the four experiences that you have studied?

Claudia Jacinto (IIPE/UNESCO) – Regarding local development, a first question to point at is the level of decentralization. To determine which are the tasks of the province governments and municipal governments in the general set of policies is something that depends a lot on each country and is not restricted to the educational area. This overview is quite different also in relation to the municipalities.

In Chile, for instance, the current model involves the broad decentralization of education; the management of the educational institutions takes place at the regional level, and the schools also have a remarkable level of autonomy. The national government is in charge of supervising the institutions – which is not a small task – as well as the pedagogical definitions. Regarding not just this theme, but also several others, the public educational system has developed a method of supporting projects: the educational institutions themselves, according to their individual vocation, present projects to be evaluated in a process similar to a competition. The evaluation uses a system of weighting and leveling of opportunities: the poorer a school, the higher the chances of obtaining support to its project.

Chile has not advanced in terms of integrating General Education and Vocational Education – in that country, in spite of unified education in the first school years, in the two last years the technical school is completely separate from humanities school. Both technical and humanities schools take part in projects with an educational and labour focus, in support of

local development projects. However, we have not had access to more general evaluations of those policies; only evaluations of a specific location or state.

In the case of Colombia, for instance, the municipalities have many responsibilities in the management of education, and there are important municipalities such as Bogotá, Medellin and Cali, which have their own educational policy with a strong incentive to projects of local development. Regarding alignment with national policies, there are so many different characteristics and differences in terms of economic and technical resources that it is very difficult to know what goes on in each region or municipality. The same is true here in the Brazilian case. According to the reports of the system of institutional follow-up of the Colombian government, 80% of the schools leer in this direction. It is an important advancement, which, notwithstanding, still does not reveal the quality – only the figures of this implementation.

As to the theoretical tensions, I believe that what takes place is something similar to what I have said about the concept of labour culture. Even though the formulations that we find in the documents do reveal their tensions, they are still quite eclectic. Colombia, Chile and Mexico have been developing policies of Vocational Education for years that included in their agenda, especially at the Ministry of Labour, the implementation of national systems for evaluating competencies. Thus, the discussion reached secondary schools. Other countries do not have the same trajectory.

In spite of the different theoretical focuses, there is a mixture of theoretical perspectives in concrete programs and actions that are in permanent tension. For instance, there are two perspectives of socioeducational orientation. One of them emphasizes the responsibility by the young individual for finding him or herself a job; this is a line with a neoliberal focus of a more rational action, of human resources, which highlights personal motivation; and there is another focus, emphasizing the development of subjectivity with a more critical look on the job market, so that the young individual will not naively insert him or herself in it, so that he or she can get to know one's rights and duties, along with collective action, trade union efforts and their possibilities. But when the young individuals that have undergone these experiences are heard, we observe that they are quite critical of them.

Irailton Lima (SEE-AC) – In the previous period, there was a certain consensus, though an apparent one, on how the educational systems should

be structured, particularly at the Secondary Level. Gradually, this consensus – which had guided the big reforms of the 1990s – was revised and, in good measure, a situation of tension was reached in which there are no great convergences. In the light of the data and of the theoretical framework that you have consulted, which is the trend, and what convergences are there in terms of structuring the educational system for Secondary Level education for work?

Washington Carlos Ferreira Oliveira (SEC-BA) – The political changes in Latin America in recent years must have had a direct influence on this study, and it becomes clear that we cannot achieve a complete overview of such reality, as it is too complex. Along with what is written in the documents, we know that the daily tensions will determine what will effectively take place. Now, in your observations, is there a dominating trend in terms of government policies for this educational level?

Claudia Jacinto (IIPE/UNESCO) – I have presented a somewhat segmented view with a focus on the reformulation of the presence of labour and labour-related contents in Upper Secondary Education. But there are other trends in the debate, and it would be necessary to take them as a whole to know if there is a big stake, if there is a big disappointment with the reforms of the 1990s, and if there is a consensus regarding Latin America's weak results in the international evaluations, among other things. It is very difficult to talk about the big trends, because the political changes follow different orientations. This is a moment in which a far-reaching ideological, political and technical revision is taking place. We did not approach countries such as Bolivia, Venezuela or Ecuador, which have been experiencing big political changes in the more recent years. In Bolivia, even though cultural diversity is placed at the center of the debate, it has not yet ensued significant transformations in the curricula; and it is not possible to know if work will be at the center of the discussions.

There is a consensus regarding the big problem of expanding education with quality at the Secondary Level. But the expansion of Upper Secondary Education is quite diversified. There are countries such as Guatemala, where the schooling rate at this level is below 20%, whereas Chile and Argentina reach 90%. In most countries, another very critical problem is the low number of individuals who are able to complete the Secondary Level.

We would have to point out the big themes that have an influence on training for work at Secondary Education level. An extremely important

theme is: what is the value of a secondary diploma in the world of labour? There are countries where completing the Secondary Level and having a diploma does not mean an insertion in the market because of an already existent massive number of equally qualified individuals, and so there is unemployment. On the other hand, there are countries where having a technical diploma at Upper Secondary Level does make a difference. In the 1990s, Argentina has abandoned technical education; but now the country is taking it up again, because there is a shortage of technicians. The reform of Upper Secondary Education must be analyzed from other angles, because it is not only about obtaining a diploma, but about what one learns – and *that* is what makes the difference in the insertion of youth.

There is a huge set of questions involved concerning Secondary Level and training for work. Historical traditions are quite diversified among different countries. And so is the development of the educational systems and of the system of Vocational Training, as well as the places where a vocational system meets formal education. There are specific ideological nuances: in countries such as Ecuador and Bolivia, the emphasis is placed on cultural diversity; in Brazil, Argentina and Uruguay, the discussion has theoretical focuses that are more similar among themselves, but with many distinctions in terms of concrete formulations; in turn, Mexico, Colombia and Chile have their own set of traditions where competencies permeate the educational system more intensely. One cannot say where Latin America is heading; maybe one may highlight two or three areas of consensus, but I personally would not risk pointing out trends.

Themes

Integrated Curriculum of Upper Secondary Education

Commentator: José Antonio Küller[55]

The issues concerning youth education affect me directly because they are connected with two disappointing professional failures that I have experienced in the past. The first of them took place when I was a director in the offenders area at the State Foundation for the Welfare of Minors (FEBEM) in São Paulo, attempting to implement an educational project in that institution, which, thus far, had a markedly repressive or welfarist character. The second failure happened when I took part in the creation of the Craft School (*Escola Oficina*) of the Dom Pedro Park for minors who lived in the streets, in the outskirts of Praça da Sé, also in São Paulo.

Those two experiences affected my professional path, which before had been focused strictly on Vocational Training. I had previously worked at the National Service of Commercial Learning (SENAC) of São Paulo, where, among other activities, I designed curricula that were adjusted to the quantitative and qualitative demands of the market. With this purpose, I took part in an interdisciplinary committee of SENAC and the Secretariat of Education, in order to implement Act 5692/1971. Within the Committee, I was in charge of curricular design.

At that time, I did not have major difficulties with the organization and integration of curricula. I saw the integration of the general part with the vocational part of a curriculum as a mere division of responsibilities: the Secretariat of Education should deal with the general part of the curriculum, and SENAC with the specific part. The challenges that I was able to notice were restricted to selecting the qualifications or skills that were more adequate to the sub-regional job markets, identifying their alleged qualitative demands and adjusting the curricula accordingly.

55. Director of *Germinal* Pedagogical Consultancy.

After SENAC, I moved on to the National Center of Vocational Training (CENAFOR), a now extinguished MEC foundation aimed at the development of teachers', technicians' and managers' skills for Vocational Education. That was a privileged place for thinking about the questions concerning the relationship between education and work, and from there I began to question if the qualitative demands of Vocational Education, such as we saw them at the time, really existed. By analyzing the work process from a Marxist perspective, we studied the disqualification process that followed along with the evolution of labour organization. If the tendency and the analysis were true, then the world of the organizations was going to demand less and less qualification. I started to notice that the relationship between education and work was more complex than I had thought so far.

One of the conclusions that we considered valid at the time was that in most industrial organizations, the operational work demanded little or no qualification. As a consequence, the professionalization of workers was frequently more about preparing them for political subordination than responding to the demands of technical training, strictly speaking. The real operational work demanded very little technical training. But more than that: the tendency towards disqualification was increasing at a rapid pace, and was also spreading throughout non-industrial sectors.

Retrospectively thinking, maybe this was the cause of the abovementioned failures. I was attempting to work in favor of an education aimed at political subordination, for a population that had already let out its rebel yell. In any case, the failures resulted in an extended professional shortcut for me.

I abandoned Vocational Education strictly speaking and started consulting at public and private organizations. The projects in which I became involved as a consultant were always related to overcoming Taylorism and disqualification at work. This reality led me to a very close contact with real work. In uncountable visits to factories and other organizations, I noticed that the knowledge contents of the activities undertaken by ground-level workers in the organization were really very poor. Even when the selection processes demanded Secondary Level training, the actual work was very poor. For instance, once at a petrochemical factory, I noticed that even though the prerequisite for an operator was a chemistry technical course, the operations were extremely simple and the technical demands of daily work were minimal.

Returning to Vocational Education a long time afterwards, this inside experience at the companies led me to think that enriching technical training

was, contradictorily, desirable – actually desirable even as a gateway, so that this new worker, with a general and technical education of quality, could contribute to changes in work process and the organization, thus putting his or her employer more in consonance with human dignity. And, later on, the work of designing some curricula was very interesting. I experienced the design of new curriculum alternatives in two opportunities: the Program of Education for Work, at SENAC-SP, and the Portal of the Future program at SENAC-RJ.

Those programs did not develop specific technical competencies or skills; they involved a broader concept of work, and developed more general competencies and skills for any and all types of work. As a result, they produced more employment than the programs with a focus on a specific technical training. More than 60% of the successful students found employment, whereas the students of SENAC itself were not even close to this mark. There were two programs focused on Basic Education for work, but they were not aimed at technical and Vocational Education at Upper Secondary Level, but they combined two advantages: they deepened the training of the worker and resulted in more employment.

Soon after that, I worked in the design of SENAC's curricula of Upper Secondary and Technological Education in Rio de Janeiro. There, I always maintained a fundamental perspective in terms of curriculum: to introduce General Education for work in the specific technical or technological education. All efforts were made so that a nucleus of General Education for work could be defined, with a significant hour load. Then, around this nucleus, the task was to develop a specific technical part.

What should this basic training for work be? I understand that it is composed by the development of competencies that can be applied in any professional activity. A handful of those competencies is not technical. The capacity for oral and written communication, for instance, is one of them.

When I read Dr. Amin's work, I was amazed to notice something that had not called my attention enough before: that basic education for work is the fundamental goal of Upper Secondary Education. Indeed, this objective is not pursued. But it would be fantastic if the whole of Upper Secondary Education should effectively develop basic education for work, in the sense that we have dealt with before. It would be an education that, in most cases, could solve the matter of entering the job market. It would also solve the

matter of the duality of General Education *versus* Vocational Education, which is always present in the discussions about Upper Secondary Education.

I heard here a group of references to a non-specific technical type of training. Regarding a broader type of technical training in connection with an area, such as in the case of the Santa Catarina experience, I believe that the experience of the Center of Upper Secondary Education and Vocational Education (CEMP) of Maranhão also goes in this same direction. This is the direction of a technical training that is not linked to a well-defined occupation in the job market, but to work in a broader sense. It is a more general training, involving also the questions of the organization of labour, the demands of social work, the social demands for work, and so on.

Finally, I noticed in the presentation of Dr. Amin that the question of the integrated curriculum has more complexities than those that have been pointed out and addressed. In the real world, the Upper Secondary Education curriculum is not only dual, but also fragmented. It is not simply about integrating two different curricula into one, but to integrate the entire curriculum, either of General Education or specific education, or both. This seems to be a very difficult task, as it goes against a tradition of an extremely consolidated organization and division of subjects.

In my experience, we have only been able to accomplish curriculum integration by means of a class-based strategy. In other words, by defining class as the component to which a function of curriculum integration is attributed. We always come up with a curriculum unit with the aim of integrating it to other curriculum units. This has been often done through projects that were treated as autonomous curriculum units and ended up working as an integrative element of the curriculum – both in the design and in the execution of this curriculum.

Lastly, I would like to propose some questions that I have previously prepared, in order to stimulate the debate. Without moving onto the doctrinal sphere, and considering the integration of Upper Secondary Education with Vocational Education as something desirable, let us consider the following questions:

1. Without making changes in the legal sphere, is it possible to have Upper Secondary Education integrated to Vocational Education? If not, which changes are necessary?
2. In the legal sphere, one may implicitly or explicitly notice a concept of curriculum organization by classes. The organization of classes in the

curriculum has produced, in practice, not only dualism between General Education and Vocational Education, but also de facto fragmentation of the curriculum. Is it possible to have Upper Secondary Education integrated to Vocational Education with curricula organized by classes? How?

3. In the real sphere, it was found that the only practice of integration is the intra-disciplinary contextualization to the competencies of the Vocational Profile. The Curricular Guidelines for Upper Secondary Education, comprising the closest legal instrument to actual school practice does not advance beyond this point. Is it possible to go beyond? How?

Discussion: Curriculum Articulation and Integration

Gabriel Grabowski (Funding Expert) – In order to discuss the curriculum theme, we need to consider what type of integrated education we are talking about. Some questions are fundamental: first, the integrated curriculum is a matter of a political and pedagogical option. It is about an option by those who believe in a different pedagogical experience, and cannot be a measure of adequacy to an act, and to the norms. In my experience of implementation of the integrated curriculum along with the states, one of the premises was the free adherence, that is, the political and pedagogical option of the states. The states had to believe in the proposal; they adhered to it because they wanted to, and not because MEC had the funds, or because the act made it timely.

The political option must be clear in the curriculum; one of the bases for evaluating the curriculum is its historical, social and collective construction. A construction is about a process, and models do not have a place in it. Each proposal is a local attempt that evidently has its axes, and its connecting "threads". The legislation brings models and guidelines, and the curriculum ends up seen as a model, but the integrated curriculum that we are discussing does not have a model, only a concept and some guiding principles. It must be seen as a process, so that afterwards it shall not be evaluated as a model.

A curriculum is also time – a theme that I would like to discuss. There is a mistake that is previous to integration: to consider that, for the middle and upper classes, the duration of the curriculum is long. In Europe, the young person's entrance in the market is delayed, because the longer he or she can study, the better. Why does the poor young individual in Brazil have to accelerate his or her entrance into the job market?

The duration of the integrated course cannot be based on the time with which education is working nowadays, and this must be a prerequisite in the curriculum. I am extremely critical of the reasoning that the proposal must determine the duration of the course, because the timing must be that of the young individual in his or her social life. If we speak nowadays of a prospect in which Brazilians will live one hundred years, then why speed up this process? I defend that the duration of education and professionalization should be extended, and that the entry of this young individual in the world of labour should be delayed. But to achieve this, it is necessary to have policies aimed at youth. And I am talking about good policies; otherwise we will not be talking about education, and about integration. I agree with Washington on the need of a stipend for Technical and Vocational Education at Upper Secondary Level, so that the young individual will not need to enter the job market and rush in order to be an entrepreneur at the age of 15. Time is a key curricular category; the curricular timing is the timing of life, and not the timing of the job market. The curriculum must be the expression of a concept, of an option, of new times.

This proposal of integrated education seeks another quality, and this demands that it should be evaluated based on other indicators. It is more expensive, takes more time and demands another type of teacher and a different commitment. In 1990, we wanted to implement a new YAE-proposal in Porto Alegre and we had to work out new public exams for YAE-teachers who were committed to a different proposal; neither villains, nor heroes, but individuals who were committed to a proposal.

Regina Cabral (CEMP-MA) – I would like to bring into the discussion – as an example – the training course of Secondary Level teachers. In a certain way, this is an integrated course (general contents with the necessary knowledge so that the student may learn to teach children), and due to this very reason, it becomes quite impoverished. Even after having studied algebra and geometry in the seventh and eighth grades, as a student of the teaching course, I went back and studied again the contents of the first four grades. As a student, I questioned: "if I am preparing myself to become a teacher, then why, instead of expanding my knowledge, should I only study what I will teach the students, when in reality I would need to know much more in order to explain to them why they should learn addition, subtraction and fractions, among other contents?"

In spite of having another concept, the teaching course is still an integrated course. The fact is that when it was integrated, it impoverished the knowledge contents of General Education – in order to train a professional who could not do without enriching these contents in the exercise of his or her tasks as a teacher. I speak from the standpoint of the student that I was and as a professional who has always worked in Teacher Education, including the complementary training of those who left the teaching course in order to work at public schools. In the current legislation, in relation to the integrated course, one must think about a type of curriculum able to secure to the student the possibility of grasping the reasons and the foundations of the studied contents, and not only the recipe, the formula, the minimum. And this is also valid for the concomitant and subsequent modalities.

In 2004, when we created the schedules of the integrated and subsequent modalities of Upper Secondary Education, we opted for an experimental model that, indeed, did not integrate everything, but primarily guaranteed access by the teachers to the contents of all subjects of the general and vocational nuclei. Integration cannot be effected based on a ready-made, *a priori* model, so that the teacher may have the possibility of investigating, of searching other new contents. The experience of integrated Upper Secondary Education demands that professionals involved have good knowledge of the institution, of the educational project and of the contents to be worked with.

I also agree about the need for a longer duration, which is more adequate for the permanence of the sons and daughters of the workers in the schools.

Dante Moura (IFECT-RN) – I agree with Gabriel and I would like to take the discussion further about the fact that we cannot evaluate the integrated course based on other principles, as this could lead to a distortion. Our entire discussion is moving towards a direction of not considering the doctrinal aspects, including the concept from which we speak. The concept of integrated Upper Secondary Education is based on a more general view of the Upper Secondary Education that we desire for our population as a whole, independently of its socioeconomic origin.

Therefore, my premise is to work so that, in the long run, Upper Secondary Education can be egalitarian regarding its fundamental principles, in order to reach the entire population. Today's reality does not allow for the materialization of this perspective in its strictest sense, because many 15 or

16 year-old individuals need to work and cannot afford to choose a profession only after they are 18 years old. It is necessary to think that, along with other policies for youth, Upper Secondary Education should be available for all. I am talking about an Upper Secondary Education that includes the entire knowledge-base of the college-prep type and, at the same time and in an integrated way, may secure a technical profession of Upper Secondary Level that allows the individual to work with complex activities, and not in a subaltern way. At the same time, it is necessary to build this new Upper Secondary Education from the principle of allowing Work, Science, Technology and Culture for all. It is a long way, and it is necessary to build its bases so that it may start to exist, even though we do not know when it will be concluded.

It is necessary to keep this perspective in mind; the possibility of an Upper Secondary Education that is unified in its principles (which is different from being merely one system per se) for the entire Brazilian population, and not only for the sons and daughters of the hegemonic classes; so that the working class may also have the right to hold off work at the age of 15, so that the sons and daughters of the poor may afford to chose a profession only after the age of 18. We must discuss how this curriculum can be materialized in practical terms, because without this basic discussion, without this doctrinal discussion, we will not reach a broader perspective in order to produce an effect, to think of the Brazilian society that we have, the society that we intend to have, and the role that education plays – fundamentally, Upper Secondary Education – in this process.

It is necessary to discuss the curriculum in the light of Brazilian reality, of Brazilian youth, and time is a fundamental element. In Prof. Regina's example of her experience with the teaching course, as well as in my own Technical and Vocational Education at Upper Secondary Level experience and in other specific types of training, the curriculum was impoverished, thus weakening the knowledge of the sciences, of language and arts. Integrated teaching was not truly integrated; it was a juxtaposition of a more college-prep type of Upper Secondary Education and Vocational Training; everything was shoved together into a three-year straitjacket, while the contents of General Education were subtracted. Those contents, not coincidentally, but due to the existing correlation of forces of society as whole, and particularly in the educational field, were kept as the criteria for

entering Higher Education. With that, from the practical standpoint of the curriculum, the access of the working class into Higher Education was obstructed, as they had to take the vocational course instead, in order to survive.

From the legal standpoint, anyone could take the college-entrance exams after completing secondary or technical education. But Act 5692/1971 brought, in its essence, the crucial problem of content reduction in the basis of General Education to include contents of the vocational part, and in result there was an impoverishment of Education as a whole. In truth, this education became vocational only for the students of the public schools, because the private schools created mechanisms to keep their curricula in a college-prep format. By subtracting the contents of General Education necessary for entering Higher Education, the public network was falling short of serving the interests of the middle classes, whereas private schools did not need to submit to the legislation. Thus, there was a massive flight from the classrooms of public schools to private schools. For this reason, the impossibility of developing the entirety of general contents aimed at entering Higher Education along with the contents of Vocational Education in only three years did not produce a tension at that moment. There were no tensions strong enough to bring about an expansion of access to the contents of sciences, languages and arts to working class youth – which, along with the difficulties of access in the educational field, also entails other difficulties, such as access to culture, and so on.

Finally, it is also necessary to discuss the duration of integrated Upper Secondary Education. Why accelerate the process of training the sons and daughters of the workers? The result of the current situation is that it only reproduces the social classes through the educational system, while people are prevented from having access to quality Comprehensive Education, from advancing their studies in other educational levels; and from preparing themselves for the world of labour. We cannot restrict the idea of Upper Secondary Education integrated to immediate access to a job – which is laudable, but is not the only path.

José Vitório Sacilotto (CPS-SP) – In São Paulo, the effective experiences in the implementation of Act 5692 were episodic and teaching went on in a college-prep format.

Sandra Regina de Oliveira Garcia (SEED-PR) – Like many others here, I am a product of the transition of Act 4024 to Act 5692. I took two vocational courses: the teaching course and accountancy (I understand that

the pedagogical secondary, i.e. the teaching course, is a vocational course, and I believe this is a relevant question to be discussed). These two courses emphasized work contents and suppressed physics and chemistry contents, among others, which are essential for the college-entry exams. Entering Higher Education is the dream of every young individual, and nobody wants a direct placement in the job market, for understanding that real professionalization takes place at the higher level. Nowadays, as a public manager, college professor and researcher in this field, I have learned that we must not make the same mistake of Act 4024, which suppressed the contents that were necessary to the education of any citizen, or the mistake of Act 5692, which presented itself as vocationally-oriented without truly educating for professional life.

In order to constitute an integrated course, we must transgress the legal aspect. This is something that I learned in my Pedagogy course, when I had a naive view of the legislation. One does not build an integrated curriculum from the perspective of competencies and skills. One may even use the format of the knowledge areas, but the inter-relation does not and will not take place – with rare exceptions – at any moment of Upper Secondary Education. In the state of Paraná, we transgressed the legislation not only as we dealt with integrated and Upper Secondary Education, but also with Primary Education. We did not work with competencies and skills, and this was a joint discussion by the schools as a whole.

How did the construction of the curriculum take place, and how was the birth of the integrated course perspective? It took place through the agricultural schools and the teaching qualification course. What was the understanding at those schools? With Decree 2208, which Paraná had thoroughly complied with, the schools found a way out. In the case of the agricultural schools, the solution was to have three types of enrollments for one course: one for Upper Secondary Education, another one for Technician in Agriculture, and yet another one for Technician in Stockbreeding. Such course was possible under the provisions of the act, and thus, the situation was internally solved. In 2003, when the new state government took office, the agricultural and teaching qualification schools pointed out the need for discussing a curriculum able to secure the specific contents for Vocational Training, without impoverishing the basic Upper Secondary Education contents.

The first disagreement in the curriculum construction takes place in relation to the fragmented "small boxes", in which the teacher "owns" the subject. It is necessary to discuss and decide which contents are necessary for training this young individual; what are these contents; and how we are going to transpose them to the subjects. There is nothing new about that; we have done nothing new in Paraná. But it is a true war, a dispute that must take place within the school in Teacher Education, in order to break with the individualistic conception of "mine", so that it may be possible to speak in terms of "ours". This junction is the first step to be taken.

We are now taking the second step, namely the step of restructuring the curriculum, which advances beyond the junction through the creation of amendments, by bringing into them some things that differentiate them without being projects. It is not the methodology that allows for the integration; instead, it is integration that takes place based on the concept and the construction of the curriculum. The amendment is the beginning, and not the consequence; and the schedule of subjects in the curriculum is the end-result, and not the beginning. In general, the school begins with the curriculum schedule, and in order to reverse this practice, it is necessary to begin with Teacher Education.

Carlos Artexes (SEB/MEC) – Unfortunately, we do not have enough time to take all the discussions further, and therefore I propose raising a few points that seem relevant to me. It is important that the UNESCO study be disseminated at this moment, now that the Federal Government is providing technical and financial support – through program *Brasil Profissionalizado*, as a priority for the implementation of Upper Secondary Education integrated to Vocational Education.

The study mentions a fundamental thing: the idea that, in the strategies and paths of individuals and youth, the relationship between work and study plays a much more interesting and complex role than one usually assumes. Many people work in order to secure the continuity of their studies, and studying is not merely a means for work. We must overcome the concept that education is a means for success at work, because it is also an end in itself. The young person works in order to make his or her education and personal development economically feasible, as an individual and in the collectivity. In Higher Education, it is becoming increasingly evident that there is a need for young individuals to work, to support themselves, and

this is already a reality at the level of secondary learning too, because there is no cost-free school, or cost-free education; the school that we call cost-free is not so. It is extremely expensive for a young worker to maintain him or herself through Higher Education.

Granting school stipends is important, because Upper Secondary Education is also expensive, even at the public schools: the distances, transportation (which is the most expensive element), and food. The full-time regime is a pertinent discussion, as it can make certain strategies unfeasible for workers who attempt to complete Basic Education. We must be careful when we opt for a double-shift schedule without securing the conditions for permanence of young students at school, not only from the pedagogical standpoint, but also from the standpoint of their social reality.

Teachers are finding it difficult to take part in the construction of a relevant political-pedagogical project for Upper Secondary Education, as if the law had become a prison for them. The law itself opened the way for this possibility, but it is as if we were confined by tradition. It is fundamental that the teaching practice can free itself from its shackles. There are extremely creative teachers in Brazil who are neither heroes nor villains. In Brazil, we lack something that is very important: bodies that are able to appreciate the value of innovative initiatives by the schools, the teachers and the students. Our society needs to create such bodies and mechanisms in order to secure a process that appreciates the teachers, creating effective conditions for the development of teaching practice.

The study points out to issues related to the generalist and specialist professionals, and I would like to point out that, perhaps, when seeking a course, people are seeking something else. I would like to focus on computer science: in the program *Brasil Profissionalizado*, the Technician in Computer Science courses are the most sought after, and in the Federal Network, they have also been the strongest demand. Computer Science deals nowadays with a technology that has become a tool, and people have realized that if they are not included in this world, they will not find a space for themselves.

I find the experience of Maranhão fantastic for the way it approaches work. It is common to suppose that work is defined and immutable: that it is up to us to make the educational process fit and adjust to the reality of the world of labour. The world of labour also has an alienating character, with exploitation of the working force. Therefore, it can and must be

transformed. We need to analyze the disqualification of knowledge itself in the pragmatic use of work: the autonomy of education can also determine the bases of a new productive world and create other references for a decent and emancipating type of work.

The interdisciplinary or cross-disciplinary concept can result in a mistake when it depreciates classes in the curriculum. The class subjects were not created by the school and the knowledge of science has been historically fragmented. In the current reality, I cannot see an immediate possibility for organizing Upper Secondary Education other than by classes. The classes can be really integrated at the school space, and the exclusivist training of the specialist teacher must certainly be overcome, but what does "integration of classes" mean? It is the individual that integrates the knowledge contents, rather than build the curriculum. Of course, a didactic transposition is important, and of course we must secure an articulation of contents. We must be careful when we aim at a curriculum that is not organized by classes, if we lack the conditions to overcome such fragmentation. There are fantastic experiences of cross-disciplinarity, which are (and must be) a part of the curriculum concept, but the subject will continue to be the central reference for the construction of the curriculum organization in Upper Secondary Education.

There is a difficulty linked to the idea of polytechnic studies in Brazil, which is a multiplicity of interpretations of this concept. A polytechnic school is not vocational in the essence of its theoretical construction; but, for common sense, it is wrongly taken as the vocational process of Upper Secondary Education. On the other hand, the vocational process must be considered in the context of the socioeconomic reality of the population, and as a transition strategy towards polytechnic studies to be built in the future.

José Antônio Küller (Curriculum Expert) – I would like to comment on the experience of Maranhão, as a link to my own experience. A project that puts the student in direct contact with work and, especially, that involves him or her in creative and transformative work has a very strong potential of curriculum articulation – even if, formally speaking, no curricular connections are made.

Roberto da Cruz Melo (SEC-BA) – At the CEFET where I work, the teachers of the subsequent courses are somewhat marginalized. As a rule, these are the older teachers with a history, who came from the productive

sector with worldly experience, without a consolidated background of academic training. When I came closer to those teachers, in their pedagogical dynamics, I noticed a concept of integration – which seems at first to be a contradiction, as these teachers have no academic preparation and have reached their status through quick courses. From the standpoint of my experience, the integration goes beyond the normative consolidation of a curriculum and the pedagogical training of the Vocational Education teachers – which is pointed out as their main difficulty. This suggests the question of what is the role of work in this relation. I cannot speak about a Secondary Level curriculum without seeing a central role of work in it. But – a "central role" according to which concept? This question must be answered.

The second reflection is the result of an experience in an Information Technology course. Four hundred young individuals of the second year of Upper Secondary Education from public schools were selected and challenged to learn basic contents of Java programming language in six months. At the end of this period, they had the perspective of entering the IT area of companies as interns or in actual jobs – and the entrepreneurs are used to asking for geniuses! But these young individuals did not have the necessary competencies, and their knowledge of Mathematics and English was precarious. Due to the fact that work became an element of this articulation, the students began to ask for changes in the teaching of Mathematics and English at the schools where they attended Upper Secondary Education.

Those two experiences indicate that one cannot look down on the work category as one designs and organizes Upper Secondary Education. Its dimension goes beyond training for a given technique.

What are the changes in the legislation that favor integration? One cannot treat general training from the standpoint of interventions undertaken by the State due to labour policies. The dividing line between education and work is quite tenuous, but it is necessary so we can understand the policy of integration in Upper Secondary Education. Technical courses cannot be seen only as a State action to secure employment. That would be deceiving ourselves and the young individuals who become interested in joining these courses. Labour policies and interventions aimed at vocational qualification have a different nature. It is important to bear this in mind when we evaluate or discuss Upper Secondary Education policies. It is possible indeed, even with the current legislation, not to mention that, in the previous 1996 reform,

an approximation to work existed only as an intention and was virtually an appendix. Knowledge areas and their technologies are present in the guidelines for Upper Secondary Education; Vocational Training and technologies are present in the guidelines of Vocational Education. It depends on how the legislation is interpreted; if we see technology as a space of mediation, if technology is linked to work and to a productive world, and is not seen as a tool for the world of labour only, then integration is possible.

Rosângela Felix (SED-SC) – I would like to comment on the case study of Santa Catarina, when Amin mentioned that there was no effective participation, and no significant use of the teachers in the process of curriculum integration. In reality there was; they took an active part, and over 1.800 professionals were trained and participated on eight seminars, as well as many meetings and studies. The problem is that those teachers are hired on a temporary basis; they end up staying at the school for six months, or a year, and then move on to other schools. This affects their work negatively. The upcoming civil service career entry exams will solve the issue, as there are 37 ongoing courses and a plan to expand activities to 55 courses in 2009.

Irailton Lima (SEE-AC) – In the case studies, I felt a lack of information and analyses on the current or forthcoming developments after the first classes, for a better understanding of how the process unfolded. It would also be interesting to analyze how students of the integrated Secondary Level see themselves within the school, and how they are seen by the others – if, somehow, the other students see the integrated course as an opportunity, or if there is a differentiation that allows for evaluating this dimension.

During the discussion about the time students spend at school, I was asking myself if in truth this is a concept of the educational world, which expresses itself through the hour load of the curriculum, or if it is a question of understanding the needs of the student – in the end, it seemed to be both things. The experience described demonstrates that due to objective living conditions, the students often speed up their schooling as a strategy for entering the world of labour. This is a real fact, and it is fundamental that policy planners should take it into account.

In this debate, there is another underlying question: is education an end in itself? I do think so. But I have doubts whether schooling is an end in itself. I see that we educators largely attribute an extraordinary role to the school, and we even find that everything that a person should know must be

taught at school; we often ignore or fail to stimulate other ways and strategies for learning in the course of life.

Another point of a more pedagogical nature is the strategic role and the importance of classes in the organization of the curriculum, and, therefore, in the development of the process of teaching and learning by the student. I think that the classes are a way of systematically arranging and organizing contents, so that those contents can be transmitted, re-transmitted and re-worked in hopes that the student can re-signify, find unity and attribute a practical and objective value to them. The fragmented organization of knowledge into classes serves a model of science that, as we all know, is being overcome – this is the old Cartesian model, which leads to an understanding of things through the sum of their parts. Overcoming fragmentation and allowing the individual to see processes in a broad sense, grasping the manifold factors that act on a single fact or datum of reality is a necessity of the present world. If this is a necessity, then we educators cannot abandon the challenge of going beyond the subjects, both in Primary and Upper Secondary Education. If we want to pave the way for an integrated and integrative type of education, which allows the individual to perceive in a broad sense his or her relation with the others, with one's work and with the environment, this challenge cannot be abandoned.

I am among those who believe that the best way to overcome fragmentation is to organize the curriculum and the educational work by competencies. Our experience does show that it works: we have curricula in which there is not a single class; we work with them, with good results. They promote an integrating and systemic education.

The labour culture is another key question in this debate, understood as the culture of work and work ethics in a broader sense. The way society sees labour makes all the difference in the way it organizes its educational system The way in which the teacher and the community see labour also makes a difference, firstly in the role that the community assigns to the school and, secondly, in the way the teacher undertakes his or her work in daily life. A community that sees labour with some kind of negative value in the educational process (which is not a rare thing in our society – quite the contrary) is a community that emphasizes the cognitive dimension because, at heart, it believes that thinking is more important than doing.

If the aim is to enter Higher Education because it is where the individual can find his or her personal and professional realization, then why have

integration and technical licenses? Why not reinforce the Upper Secondary dimension, providing it with a broader configuration and an enhanced ability to guarantee that the student will know the contents able to raise his or her chances of reaching Higher Education? And, instead of investing in the curriculum integration, why not reinforce an increase in the number of enrollments and chances to enter Higher Education? These are central questions in this debate.

José Antônio Küller (Curriculum Expert) – the interaction of Vocational Education with the local productive arrangements, when those arrangements exist, is very interesting – and it is also a very difficult task for the school to undertake by itself. But I have taken part in the design of a proposal of territorial development led by the students, and I see the possibility of turning this experience into a laboratory and a source of lessons about the introduction of student actions in the curriculum that result in effective social changes.

Much the same way as the Chemistry lab experience, I can make an intervention in the social reality of an experimental situation. Even if the intervention does not produce effective results in terms of social transformation, it is already an unquestionable change provided it can demonstrate this possibility. One can either think of a situation of effective change or simulate this situation. An example: it is not necessary to effectively implement an agroecological project, but we can delimitate an experimental field so that the students can develop agroecology activities. The students learn in the experimental field, so that later on they can transpose what they learned to the actual situation.

There are additional options for advancing other than those of the productive arrangement or the territorial development initiatives. Among all of them, the most productive are those that engage students in a transformation of reality. The closer they are to reality, and the more capable of leading a transformation process, the more they learn. Of all the reflections that we have made, I will highlight one: Vocational Education is critically taught when it engages students in a project of transformation of labour reality itself, and of real work practices.

Resources for Funding Vocational Training: a Critical View

Commentator: Gabriel Grabowski[56]

A clear fact for us is the central role played by funding, which nowadays has consensually become one of the key themes in Education. As a Philosophy professor, I am a researcher on this issue. The legislation of Vocational Education, the many policies, programs and concepts do not explain the totality of the program. I do not undertake research on numerical figures – not that they are not clarifying –, but I attempt to verify what the figures are not showing, and what the figures actually hide. The aim is to grant visibility to the indivisible nature of the financial figures.

The existing studies on funding for Primary, Secondary and Higher Education are quite expressive, but for Vocational Education and for integrated teaching, they are either incipient or non-existent. There are sporadic articles and analyses from the standpoints that the authors adopt: studies on the Federal Network, articles about the S-System and so on, but the researches are very incipient.

In Brazil, among all the experts on this theme, there is a consensus that the problem of funding demands the tackling of a problem that no one has had the courage to face: the funding baseline for national education. If in 2009 it goes on as 4.3% or 4.5% of the GDP, it will go on in the same shameful way, as the resources are linked to the contingencies of the budgets, which increase in numerical terms according to the collection of resources. It is not possible to design far-reaching solutions if this issue is not faced. A part of the national wealth must start to be directed to education, not to mention that the large profits made by companies, by the financial system and the Brazilian millionaires on a worldwide scale – from a country with such huge inequalities – must aid the funding of education in this country.

55. Researcher in the following areas: government policies, Education, Vocational Education and Vocational Education funding.

Another thesis that I advocate: along with the fact that these resources are not enough, they have serious problems in the management of education as a whole. These problems are deeper when it comes to Vocational Education, where fragmentation, overlaps and lack of articulation in its implementation and in investments made are even more striking. These problems are linked to the relationship between the federal, state and municipal networks that provide Vocational Education – each one of them has its own budget, priorities and strategies.

In a survey undertaken some time ago, we identified that almost all ministries have programs and resources directed to Vocational Education. In the field of youth alone, there are over 20 programs of the Federal Government with significant financial figures, not to mention the 27 states, the municipalities, NGOs, unions and so on. The PROJOVEM initiative has a projected budget of R$ 5.6 billion for 2008-2011. There are also actions in the Ministry of Social Action and Ministry of Labour. These are specific programs that have recently sought an articulation, such as the re-organized version of PROJOVEM, but they are still fragmentary. We followed up on the MEC discussion in the attempt to involve the S-System in the expansion of the provision of cost-free courses in the country. The resources of the S-System for 2008 reach R$ 11 billion, including both the compulsory revenue and its own revenue.

In Vocational Education, there is a huge fragmentation of programs and resources, which are insufficient, while there is no mechanism capable of articulating them, as for instance the Development Fund for Primary Education (FUNDEF) and the Development Fund for Basic Education (FUNDEB). I am not an advocate of funds but they enable the organization and articulation of resources. The creation of the Development Fund for Vocational Education – a proposal of constitutional amendment that is in discussion at the National Congress, the so-called FUNDEP's PEC – is not envisioned to centralize resources, but instead to become a mechanism to channel and articulate those resources, since fragmentation leads to competition and overlapping of actions.

I took part in some processes of technical advice and discussions on Upper Secondary Education integrated to Vocational Education in the states and along with the Ministry, in which I have always defended that the program would need new investments, and that the Federal Government should contribute with additional resources. In 2004, 2005 and 2006, the

Federal Government did not provide them, claiming that the implementation of integrated Upper Secondary Education should be a political option of each state, and that the investments were up to the states. Since then, we have been saying that the program should provide resources.

What was invested in integrated Upper Secondary Education, according to MEC's budgetary assignment? In 2006, R$ 21 million were invested; in 2007, R$ 38 million; and in 2009, R$ 52 million. This increasing projection represents advances in terms of financing. But the question is not simply to increase the resources, for it is necessary to enhance management as a whole. Integrated education is the "poor cousin" of education, if compared to other programs.

There have been two significant advances. One of them is the FUNDEB, in which Upper Secondary Education began to be dealt through a shared coefficient in the distribution of resources. It is important that the states look at the fact that they have different weights and different coefficients for Upper Secondary Education, integrated Upper Secondary Education and agricultural teaching with or without a boarding system, depending on the complexity of each one. So I am acknowledging here that the FUNDEB has taken a step forward, which includes this schooling level, however much insufficiently. I also acknowledge the resources of program *Brasil Profissionalizado*, which have already pre-assigned R$ 900 million for the states. And this sum can be expanded: the first demands already point at a need for R$ 1,2 billion.

The adherence of the states to integrated Upper Secondary Education must be very well analyzed, as it can be motivated by the resources, instead of by the proposal. In the advisory processes I have undertaken, some states declared themselves willing to adopt integrated education as a government policy; but there are other states that only wanted to obtain the resources of the Federal Government. This is a problem for *Brasil Profissionalizado*: are the states going to join in for the sake of the project itself, or for the resources? As was already said here, the relationship between the members of the federation is not one of collaboration, but one of competition and dispute. This relationship involves disputes in several fields: of political parties, concepts, projects and resources. In order to relieve this situation, there are some proposed programs. When there was no pre-assignment on the volume of resources, adherence was more linked to the proposal itself; now that there is more of an interest in the R$ 900 million of *Brasil*

Profissionalizado than in integrated Upper Secondary Education, there is a risk of repeating the experience of the Program for Reforming Vocational Education (PROEP), and we must avoid this risk.

Another problem also stands out: the fragmentation of the several networks of Vocational Education in the country (at the federal, state and municipal levels; by the S-System, union-networks and NGOs) and the countless programs which, at a point in time, sustain a dialogue with the networks, and at a different time fight over the same audiences and the same resources. Such fragmentation of resources and programs is not occasional, but intentional, and results from the way the Brazilian State organizes funding. The State not only allows overlaps, but also – and intentionally – allows and induces fragmentation.

Managing the relationship with the states and with civil society actors (private segments of education; union headquarters; vocational, professional, employers' and workers' union confederations; and NGOs) is a way of offering public funds to society as a whole, and also for training the worker in this society, for reproducing the working force and for reproducing capital. Even though there are no studies, but only hypotheses, such fragmented management of the programs and of funding serves this end, as the effectiveness of these networks and programs is weak when one considers the demand of the country. Such logic based on programs, and not on a funding policy, with a fund to organize and articulate them, is intentional and serves to maintain the fragmentation and the dispute over resources.

Discussion: Investment and Upkeep in Vocational Training

Irailton Lima (SEE-AC) – The parameter for the integrated course in the FUNDEB is not very different from the "pure" secondary course. But are there already indications that it helps in some way? Is there any difference in this type of funding? Does it in any way cover the demands?

Does program *Brasil Profissionalizado* have the financial breadth to promote a repositioning of Upper Secondary Education as intended by MEC? Does a program with an initial pre-assignment of R$900 million, and possibly reaching over R$1 billion (without considering the management, the components of its formulation), in terms of financing, have this capacity?

A good part of the resources from the listed sources is aimed at qualification, which is the poor cousin of Vocational Education. On a certain occasion, in a conversation with Prof. Eliezer, he claimed that "vocational qualification is not the business of MEC, but of the Ministry of Labour, and we don't even get to discuss this". And part of this volume of resources is aimed at qualification. How to allocate such resources within the broader overall funding of Vocational Education, so that it may have access to the necessary sources and move on well?

I have a question for Prof. Amin: if, ultimately, integration aims at solving the fragility of Upper Secondary Education, then what is, in particular for MEC, the purpose of integrating Upper Secondary Education and Vocational Education in this country?

Regina Cabral (CEMP-MA) – There are resources for training processes for workers and their sons and daughters, which are scattered throughout different ministries (such as the MDA), and these ministries hardly ever use the network of vocational schools for this end. It happens then that those who qualify workers are not always capable of undertaking this work from the technical standpoint. We must think of the articulation among the ministries in the provision of Vocational Training, in the various forms of qualification for the workers and their children. Furthermore, we must think about funding not only in terms of the initial investment; upkeep is indispensable – and it must be overseen – because it is not enough only to buy computers and set the labs up, when the first broken machine will never be repaired. Permanent follow-up and monitoring of upkeep is very important. How can a concentrated network coordinate labs distributed throughout the municipalities? Because the federal and state schools are located at the municipalities. Oftentimes, the school is very distant from those who have the power to solve a problem – as for instance in the case of equipment and labs that become obsolete. Throughout Brazil, we find labs and libraries that have been closed, some of them with three, five padlocks. Therefore, funding must be planned so that a continuum of capital and upkeep can flow in a monitored and overseen manner. Centralization is very distant from the solutions, which, as a rule, never arrive.

Roberto da Cruz Melo (SEC-BA) – Funding is a question that involves several aspects, and is not restricted to the act of providing more money. And when we talk about more money, where does it come from? This discussion

is very covert, because it deals with structures of the Brazilian State and dispersed policies with a doubtful effectiveness.

With the introduction of integrated Upper Secondary Education through the FUNDEB, there is the problem of financial management: how does this management take place within the internal structure of the secretariats of Education? The problem becomes more complicated if, in the execution of the budget, the administrator of the secretariat does not choose to order this sum, slightly increased, for upkeep purposes. In the case of the State Secretariat of Education in Bahia, in which the administrator opted for this path, the upkeep sum was progressively raised from R$2 million to R$60 million. This reflects on the articulation with the Federal Government, because when the upkeep activities are more structured in the budgets of the states, those investment resources have less weight. For example, for Rio Grande do Sul, for São Paulo, with a budget of R$700 million, the resources that *Brasil Profissionalizado* offers represent very little. This situation must be solved in the SETEC and the SEB. The hybrid combination between strengthening Upper Secondary Education and Vocational Education, as present in program *Brasil Profissionalizado*, poses a serious problem to the management of resources if the secretariats do not have a clear view of its political intentionality.

The solution that we found in Bahia was to establish a very fine relationship between Vocational Education and Upper Secondary Education, but that doesn't even exist in some studies: there are two secretariats and three directorships; this has an effect in terms of intentionality. To talk about funding without touching the organization of the State structures is something that weakens very much the demand for more resources for Vocational Education.

Gabriel Grabowski (Funding Expert) – In this field, what the Federal Government has historically financed is investment: in buildings, labs, consultancy and Teacher Education. But in a school in Rio Grande do Sul, we found equipment that was imported in the 1960s stored in boxes that have never even been opened.

The relationship with the members of the federation is complicated, because the Federal Government cannot provide for the payroll upkeep, for instance. It is necessary to change the Brazilian Constitution, so that the Federal Government can contribute with resources to this end. Each

government creates its own programs and its structure – and the Federal Government doesn't need to keep transferring resources only for investments, which are important and necessary, but in many cases result in white elephants.

We only need to invest in structures where they do not exist, because in some places there is a lack of them, while in others, there is an excessive number of them. To this end, we need to map out such demand. We were not able to articulate the use of the existing structures. Around the entire country, there are federal, state, municipal, community and private structures closed. The S-System has a structure of over 3,000 units in the country, and many of them are underused. We must reach a clearer view and have more political responsibility so that we will only invest in building infrastructure where it is necessary. São Paulo and Rio Grande do Sul, for instance, do not need such investment, because both states have an abundant number of idle public structures.

The origin of the resources is a central question. It is indispensable to increase the percentage of the GDP and of the national wealth beyond the current 4%. It is in discussion that the internal and external debt can become a source of additional resources for education. But we are not fighting to unbind the resources of education. Let us see the case of the DRU, with the unbinding of revenue by the Federal Government[57]: in the past 12 years, we have failed to invest R$100 billion in education; these resources were redirected in order to strengthen the Brazilian trade surplus, and they will increase with the implementation of FUNDEB.

FUNDEB is undergoing progressive implementation, but it is insufficient and will not be able to solve the problems. The same can be said of program *Brasil Profissionalizado*, which is an impulse in the right direction, but will not be able to solve those problems you have mentioned. The policies are lacking articulation: one body deals with qualification; another body, with education; another with youth; and yet another with integrated education. The competition is not only taking place in the ministries, but also in the governments, in management and politics. Society is also competing: the state school competes with federal school, and federal school competes with

57. The Divestment-Act on Union Income (DRU) was approved in 1994 and allowed to government to unbind 20% of the taxes collected by the federal sphere with social policies, and to direct these resources to the attainment of trade surplus goals.

community school. Those are background issues that crosscut funding. They are real and, at times, they are more decisive than other factors that you have duly mentioned.

José Vitório Sacilotto (CPS-SP) – In São Paulo, the CEFET, the S-System and Paula Souza Center, which is responsible for Vocational Education in the state, have gathered and began to map out the existing needs, in order not to duplicate efforts. I fully agree on the occupation of spaces and on the existing idle capacity. The technical and vocational schools of the state remain empty during the day, and labs are left to the flies during the day shifts. We must occupy these idle spaces to increase the provision of Vocational Education.

Another significant problem is the morning shift: I am afraid that this emphasis on integrated Upper Secondary Education may end up harming the other two – concomitant and subsequent – opportunities. Every year, there are two million individuals who complete the Secondary Level, and who have not had access to Vocational Education, but maybe wished they had. Integrated education will not solve their problem. So both concomitant and subsequent education must become a real alternative. The FUNDEB is funding integrated education, but not these two other types, which were meant to be financed by other funds. Along with such diversity in the provision of courses, we must also think about a diversity of curricula based on different categories. As demonstrated by the CEMP as well as other cases in development stage, it is possible to build different curricula based on competencies, and these experiments need to be controlled, discussed and analyzed.

Carlos Artexes (SEB/MEC) – The Ministry of Education is permanently fighting for more financial resources for education. One example is the increase in the resources of the Ministry and the conduction of the process to put an end to the unbinding of Federal Government income (DRU) for education. What is amazing is to see the society divided in the fights regarding education. Where are the teachers? Who is fighting for the causes of education?

We are adopting a cause and I would like Gabriel to make a comment on it. This cause is the cost-student-quality relationship in Upper Secondary Education. We need to concretely analyze the cost per student in relation to quality, including the impact of FUNDEB in the cost-student-quality relationship, which will also be interesting in terms of comparison. I am not

talking only about the profile of the individual, but also about the investments allocated by the Federal Government in the state, in the private network, and their impact on quality. There is a comparative study that indicates a very big discrepancy in the cost of the Secondary Level student in the world. For many years, Brazil has invested in the state network less than R$1,000.00 per student per year. With the FUNDEB, the perspective is that this sum will increase, as an average, to R$1,500.00 per year. We are fighting for an indicator of R$2,000.00, now that the average of the developed countries is of US$2,000.00 per student per year.

I cannot refrain from talking about program *Brasil Profissionalizado*, because there is a contradiction between us. The program was born in the perspective of having an inductive policy of Upper Secondary Education integrated to Vocational Education, to be developed in and by the state system. The Federal Government needs to take charge in the induction of an educational policy by employing its intentionality and technical and financial support system. It behooves the states, with their autonomy, to establish collaboration with the Federal Government for providing quality education. This is related to the discussion on Federalism, and with the development phases of the national system of education. The centralism that historically marked Brazil has concentrated and still concentrates the resources of the Federal Government. I am an advocate of the decentralization of resources for the education systems, and directly for the schools. Autonomy does not mean sovereignty, because the states must be inserted in the national causes. We have a federative system and we need to collectively build the idea of a collaboration regime as a third stage of Federalism, which we have not yet built. This is the background contradiction. Program *Brasil Profissionalizado* was born from the perspective of having an incisive policy of Upper Secondary Education integrated to Vocational Education. The states were the ones who made the claims, fought and won. The program was expanded in order to fund Vocational Education.

Gabriel Grabowski (Funding Expert) – Please allow me an intervention: that is the contradiction, but the current government has made a mistake. The states say, through the National Council of State Secretariats of Education (CONSED), that they want money, and in exchange, the federal government offers *Brasil Profissionalizado* as a different program. With that, there is the risk that the states will want only the resources of the program, instead of the proposal.

Carlos Artexes (SEB/MEC) – *Brasil Profissionalizado* is open, also to strengthen the teaching of science at the non-vocational schools. Anyway, what is at stake is related to Federalism and to regulating the relationship between the Federal Government and the states. There is a public bureaucracy, there are many demands for the transfer of resources, and the states have difficulties to meet the regulations imposed by the federal bodies, as well as to build or consolidate their capacity to plan and organize the management of those resources. The level of execution of these programs is below 10%. Program *Brasil Profissionalizado* does not fall outside this rule.

It is true that only four components are funded. But we could deepen the discussion on this relation between the Federal Government and the states, which brings about this situation of an availability of resources but no execution. What is the solution for it? It would be easy if the resources were not centralized, but this is not the Brazilian reality. We make voluntary transfers from the federal government to states and municipalities through formal partnerships. Along with the strong regional inequalities, it is necessary to consider that some states have resources of their own, not only of the formal partnerships, but they are not capable of using them. There are states with an abundance of resources, because they are not capable of spending the 25%; whereas other states lack resources.

Sandra Regina de Oliveira Garcia (SEED-PR) – The positive aspect of *Brasil Profissionalizado* is that the resources are from the Federal Government and do not come from an international loan, as was the PROEP case.

Brasil Profissionalizado has opened up the possibility of financing other models too: the integrated course is implemented, but it does not exclude the subsequent format – which may even happen to become more present when conceived as full-time education. It is possible to have all formats of Vocational Education, and the possibility is open for dedicating a percentage to the provision of subsequent courses. This was a victory both of the state secretariats of Education and of the secretariats of Science and Technology.

As Gabriel has pointed out, what is worrying in program *Brasil Profissionalizado* is that the strongest proposal is that of the integrated course for regular education and for YAE. It is up to the state, which is autonomous, to undertake the responsibility for maintaining it, to have the resources for this task and a teaching staff of its own. One thing is linked to the other. The federal government funding is meant for labs, for building schools and making those spaces adequate. We fight for this arrangement, because in

Paraná there are spaces already, but when all this gets mixed up, problems arise. And what if the state proposes only the purchase of Physics labs, or of Chemistry labs? If we decided to improve the labs of all 1,100 schools of Paraná, then we would need R$ 240 million; this alone would use a significant percentage of the R$ 900 million. It is necessary to be careful when one says that everything can be financed: what are the priorities? Are the states the ones deciding what the priorities are? How will the transfer of those resources take place in a manner that enables their use? The PROEP had many strings attached, and the resources ended up not being used. It is necessary to see this type of management by the MEC, and to think better in regard to it.

The same story of the "pros" keeps going on. There are many programs to deal with the same thing: *Pró-letramento* (pro-literacy), *Pró-infantil* (pro-children), *Pró-formação* (pro-training), *Pró-funcionário* (pro-staff), *Pró-jovem campo* (pro-rural youth), *Pró-jovem urbano* (pro-urban youth), and so on. Let us put an end to the "pros" and articulate all those programs.

José Antônio Küller (Curriculum Expert) – I will make some remarks on investment and upkeep. In the S-System, which I know a bit about, many schools remain idle during the day shift. I have also followed some attempts to save the community schools of PROEP. In the schools that I have observed, the public investment dedicated only to infrastructure represented the equivalent to, or, at most, two years of upkeep. That makes it unviable for Vocational Education to be raised up. As a counterpoint, it is worth mentioning an experience of the National Service of Rural Learning (SENAR) of the State of São Paulo, which, as a physical structure, in the entire state, has only two floors of a building in the city of São Paulo. It has no physical facility aimed at teaching while it is developing a broad program of Vocational Education. As an institutional policy, all financial resources are aimed at the costs of upkeep.

Gabriel Grabowski (Funding Specialist) – I do not understand how integrated Upper Secondary Education can be a type of education that serves as a counterpoint to the subsequent or other modalities, but it is a new experience under construction. It is neither exclusive nor universal in a dimension (national, state or municipal), and the Decree has respected all the formats. It is integrated and as such it serves as a counterpoint to the separated formats, but not to the subsequent modality.

I believe that it is possible to come up with a different educational policy in Brazil, in order to establish cooperation with the states and municipalities. But to take superior action, it is necessary to change the pre-existing political relations that have an impact on the members of the federation. When the states, with their governors and secretaries, come to discuss the more structural issues of funding for education with the Federal Government, it will be an opportunity to start changing things. The states, with their legislative benches, have the power to be convincing at the Congress in order to change the DRU[58], and the relationship between the members of the federation, which is constitutional but can be modified. If this is not discussed, then one will miss the opportunity of negotiating those issues. Or maybe no one wants this political logic to change, as it seems to be serving everyone.

I would like to call attention to the question of infrastructure. I have been to the state of Ceará in 2005 and 2006, and I quite liked the way they have integrated spaces there, with an initiative previous to Decrees 2208 and 5154. There is common use of spaces by the students of the schools of Upper Secondary and Vocational Education. The labs are unified and all students use them with a planned schedule. And this is organized by the territories, instead of the network or the system. It is an example that can be very illustrative to us.

There are many studies on the cost of the student indicating a huge diversity of cost-student ratio in the country – actually wider than the diversity of programs. In a recently published book on cost-student-quality, the figures demonstrate an even stronger fragmentation. The hourly cost of a student ranges from R$1 to R$20; the average yearly student cost for most cases is of R$1,000.00 reaching R$10,000.00 in the programs, including the Federal Network and the S-System. In the private initiative, this cost is even higher. In a study on indicators of quality in Upper Secondary Education, Gaudêncio points out, following the indications of international organizations, that an education of quality corresponds to a cost of US$5,000 per student per year in the upper secondary and technical and vocational schools.

58. Proposal 277 of Constitutional Amendment, which annually reduces the percentage incidence of the DRU on the resources for the maintenance and development of education, was presented by Senator Ideli Salvati in 2008. It was approved by the Senate in the same year, and by the Federal House of Representatives in 2009. As the House made changes in the text previously approved by the Senate, Proposal 277/2008 returned to the Senate to be examined by the senators again. It was still under examination when this volume was published.

There are several cost-student studies, and all of them reveal a huge disparity in the country: each program, each network and each system has a value, and there is not a standard – even though the FUNDEB has its own standard. There are many resources at the source, but what reaches the student and the educator is very little. We are concluding a study on what is diluted along the way, and where it goes. It goes to management activities and infrastructure, instead of to the educational aim, which ends up with the smallest share of the resources. The chain consumes a great deal of the resources, and not even 60% of these resources reach down to the schools. The same phenomenon repeats itself in the programs: some of them have a 40%-administrative fee.

Another theme is public and private management. It is not because the governmental question is public that it does not work well; it is stuck because of the model that we are adopting. The model of hiring through private actors is simpler, more easily executed and more accountable: the goal is the product. For public management, the product is not enough: also the intention of the subject is verified. Not the process, but the intention. It is evaluated whether the governor, mayor or NGO had a good intention or not. The management is intentionally stuck, so that it may not work as a public management of quality and efficiency.

Knowledge-at-work and Teacher Education

Commentator: Jarbas Novelino Barato[59]

If work is thought of as a guiding principle of educational action, then its teaching activity is related to the nature of learning to work, and it does not matter much if this takes place in the integrated or concomitant Upper Secondary Education, in the post-secondary vocational teaching or in qualification.

I will attempt to be brief, presenting here some ideas on learning and work with the intention of inviting a discussion.

Labour and Market

In his PhD thesis, Cláudio Salm made an important correction concerning the obsession with proposing a school that is aligned with the job market. He observes that the capital uses schools according to its interests. Every attempt to structure a school in line with the job market is an effort in vain. Whenever necessary, the capital will change its criteria, ignoring the school that was supposedly organized according to its interests. For the capital, what matters is only its own convenience; it uses the school in accordance with it, regardless of the plans that educators may have made to provide an education that is adequate to the market.

59. Scholar and consultant in the area of vocational education.

Knowledge at and of Work

In order to become a counterpoint to the education oriented towards the market, and by the market, it is necessary to think about a Vocational Training aimed at knowledge at and of work. Knowledge of work is a question that has been weakly explored, and one that has awoken virtually no interest in the academic area. Such is, at least, my own personal experience. I had difficulties during PhD studies when I sought to discuss the type of knowledge that is built in the productive activities.

In conversations with my advisor and other researchers of the university, I tried to call attention to details concerning work. One day I described my observations on hair-curling technique, showing the dynamic of the knowledge demanded by this professional practice. The reaction of my listeners was of total lack of interest and some complacency.

Knowledge-at-work and Science

In the document written by Prof. Amin Aur, there are indications that give the impression that science and technology generate work, and that without them, work would have no meaning. It is necessary to consider more carefully this almost hegemonic notion in the educational environment, because work is born before science. We are what we are and we even make science because we work.

The Alleged Ignorance of Some Professions

Another very personal and biographic concern that I have always had, and which I have feared to discuss with my academic colleagues is that there is a perspective of judging some works as debasing, i.e. as activities that demand little or no intelligence.

There are two occupations that are frequently mentioned and seen as debasing in two different countries: waitress in the United States and construction worker in Brazil. In both cases, it is believed that the activities of these professionals do not require intelligence. Waitresses and construction workers are seen as people who don't know what they do, and have no idea of the essential knowledge of their work. It is worth remembering here a

classic case: the story of Schmidt, the worker instructed by Taylor to undertake movements according to the criteria of a scientific organization of work. Schmidt is characterized as an individual with limited intelligence. But this "brute", when he was instructed by Taylor, was building his own house. He was able to make calculations, he knew how much of his income he could spend to buy construction materials, he knew how to deal with electricity problems, and he knew many construction techniques. He was not the "brute" that Taylor has us believe.

I don't have the time to fully develop the issues that I have presented in an abridged and supposedly provocative way. I would only like to send a message through them: we need to revise the issue of knowledge at work.

And what does this has to do with Vocational Education? It has a lot to do with it, because the way knowledge at work is seen by teachers has consequences for their teaching practice, for their choices regarding content and didactics.

A final provocation: it is always affirmed that the teachers who work with Vocational Education need to get pedagogical complementation, or else they will not be able to develop good didactic work and will not teach good classes. I am not so sure about this, because I believe that some types of pedagogical complementation hinder the development of those teachers.

It is interesting to point out that nobody talks about work complementation for teachers in the field of Vocational Training. After all: how is it that teachers who have never left the school could possibly develop the necessary sensibility for adopting work as a pedagogical principle?

Educators are not used to thinking about this, but they are quite eager to talk about the need for pedagogical complementation for professionals who do no hold an academic degree. Such complementation, as a rule, ignores the dynamics of learning within the productive activities. It ignores the dynamics of knowing and working out the knowledge that is structured in the workers' daily activities, and it imposes a didactic that springs from practices with academic contents. That is why I find it important that there is "labour complementation" instead, echoing an observation that I have heard from José Carlos Peliano: "Once in a while, it is necessary to get to know something with your own hands, instead of just talking about it".

When I read the document written by Prof. Amin, I noticed some things that are always happening when one talks about Teacher Education at the juncture where education and work meet. I will list them here in the hopes that my observation may merit further discussion.

- Sometimes there is an understanding that if the person is focused on technique, they undergo some type of drill, as he or she only learns the practice.
- The duality between theory and continuous practice, even when one thinks about integration. The teachers of the vocational side of education end up categorized differently from the other teachers. The work that they do as teachers is seen as an inferior type of activity to "scientific training"; their salaries and the format of their work contract reveals a treatment that takes them for a second-class type of teachers, and the proposal of pedagogical complementation that is imposed on them ignores their vocational experience.

Quite often, the teachers of vocational content are individuals with little school training and vast experience in their fields of work. I have once met a cookery teacher who said that he wished to learn pedagogy. I took part in some of his lessons and concluded that I was the one who had something to learn. From the standpoint of organizing a course inside a kitchen, he had a sense of space and timing that no pedagogical complementation course could ever teach him.

Almost always, when we propose pedagogical complementation, we suffer from a type of blindness that is not evident: we are not able to see the knowledge that is structured in the making of the professions that we supposedly wish to teach. Even the workers who are called to teach frequently dismiss the work contents of their original professions, as they are seen as unqualified by society. Many tasks are seen as simple, commonplace and brutish work. Therefore, they become invisible, along with the professionals who make their living from them.

- Regarding a teacher's job, either in General Education or Vocational Training, I am concerned with the invisibility of knowledge contents at work. I am concerned with the idea that science and technology can fully explain what work is. Such academic view ends up ignoring knowledge contents whose nature was forged in the activities of a social practice under the light of the work.
- I think it is always necessary to ask: what is the role of the teacher when work becomes a significant content to be considered in Education? And this question, as I see it, must be made not only for the technical and vocational course. It is valid for any modality of Education that has as its immediate horizon the training of individuals for a concrete job.

I would like to end this presentation by reading a brief excerpt of the foreword that I wrote for the Brazilian edition of Mike Rose's work on the knowledge of work:

> The cognitive richness of the waitress profession finds equivalence in the contents of hairdressers, carpenters, welders, electricians and plumbers. It also experiences the same fate: it is invisible to the eyes of observers incapable of seeing work as a constant unfolding of acts of intelligence. It is important to point out that invisible knowledge is different from tacit knowledge, taken as non-verbalized knowledge that may emerge at any moment in the life of a worker. The former is a type of knowledge of which the worker is conscious, but is not evident for observers unable to examine the productive activities with the eyes of their professionals. Such invisibility of work reminds one of the invisibility of human groups, whose existence is ignored by the powerful. It reminds of the invisibility of the indigenous peasant in the novel Garabombo, el Invisible, by Manuel Scorza[60].

I insist: the teachers involved in Vocational Education must open their eyes to aspects that remain invisible for a good part of the educators. And those aspects can completely change the existing perspectives on teaching activity in Vocational Training courses. They can totally change views and Teacher Education.

Discussion: Teacher Education and Work Contents

José Vitório Sacilotto (CPS-SP) – The technical Teacher Education is still in the emergence sphere. What we have today is a special program, and we know that MEC has a project that has been "around" for five or six years.

In the past, the recruiting of teachers for Vocational Education underwent all those stages of learning inside the school itself, which we could call inservice capacity building: the student became a sort of a teaching assistant and later on a teacher, and his action was validated by a license to teach.

Artexes spoke about the difficulties of a Physics teacher in General Education; in the case of Vocational Education, such recruiting is much more complicated. We do not have a specific degree for it, and I truly do not

60. ROSE, Mike. *O saber do trabalho.* São Paulo: Editora Senac, 2007. p.11.

know if a specific degree would actually attract many people. Both in the areas of methodology and didactics in vocational teaching, literature is also quite scarce. We have great context analyses, but we don't have much on "how to do it".

When we talk about integrated curriculum, it is even more complicated to bring together General and Vocational Education. We must start a serious discussion about these questions.

José Antônio Küeller (Curriculum Expert) – The making of an activity is learned essentially at work, especially in the operational and technical activities. I am not aware of the current statistics, but ten years ago, when I wrote a book on the topic, 80% of the workers in the organizational base had Vocational Training in their own workplace. In the case of the Teacher Education, this is a bit similar.

I don't see a strong distinction between the education of teachers of General and Vocational Education. A Chemistry teacher (just like a Geography or Tourism teacher) learns Chemistry, and, later, takes a pedagogical complementation that is very different from Technical Education.

The implementation of changes in the educational projects is complex. If we are going to implement an integrated curriculum, we must change the formats of teaching activities, so that integration may really take place. To attain this goal, Teacher Education must also change. In my experience of leading formal education processes for teachers, the attempts have been a bit frustrating. At the end, the training does not reach the classroom, and does not make an effective change in the teaching practice. The teacher undergoing training gets enthusiastic and encouraged after training courses with 100 or 150 hours of preparation. When this teacher is confronted with reality, he or she faces the first challenges and tries to solve them. After successive problems, this individual ends up returning to his or her conventional manner, following the old references. In other words, the concrete references and the learning that people have of the teaching work are based on the conventional form of educating. It may seem a bit Taylorist, but the most successful experiences were those in which individuals had an alternative reference and a suggestion for acting differently, replacing what they had learned in their professional and life experience.

Dante Moura (IFECT-RN) – I am going to comment on Teacher Education for the vocational field, and, specifically, for the integrated curriculum.

Is training necessary for teaching traditional Basic Education classes? Is working in the field of Vocational Education the same thing as working in Basic Education without a link to Vocational Education?

The answer to the first question is yes. But the answer to the second one is no: capacity building in Basic Education is not enough for those who will teach in Vocational Training. If specific training is necessary to work with Basic Education, I understand that it is necessary to provide specific training for those who will work in the professional field, because being a teacher, however important specific technical knowledge in the field may be, isn't limited to knowing how to do and convey specific contents. Being a teacher involves a broader human education, from a perspective of values, concepts and worldview, and this is not only found in the subjects of General Education, but must be present in the entire relationship between teaching and learning. To be a teacher in Vocational Education (either in general or specific subjects), beyond technical specialized knowledge, it is necessary to be trained in the broader perspective of teaching. This is a provocation, because there are diverging positions. I understand that these positions lead to the following situation: if specific training isn't necessary, in a certain way I am denying the teaching profession, at least in the field of Vocational Education. The relationship between teaching and learning demands the participation and intervention of a professional trained in that broader perspective.

In the case of integrated Upper Secondary Education, we do not expect that the trained citizen will be just a good technician. This is assumed, but it is not enough. It is necessary that he or she should have more elements, actually even to evaluate the profession for which he or she is being trained, and his or her role in society: which are the work conditions in the current society for the professional of the area? How can he or she find a place in this society and, at the same time, act in order to achieve some transformations in the interest of collectivity? Therefore, in order to act in this field, the teacher must have specific knowledge of that type of profession, but one must also have a broader knowledge, a worldview, a perspective on society, the role of education and the overall citizen education to which he or she is contributing.

The previously mentioned unequal treatment – scaled back in relation to the professional of the specific fields of knowledge – is not linear in all institutions and organizations. In the institutions of the Federal Network, in

the CEFETs, there was a break with this pattern about twenty years ago, since the institutions began to demand from the teacher of Vocational Education a college diploma in his or her area, or an academic degree. Nowadays, in the Federal Network, the reality is almost the opposite of that: there is an appreciation of the professionals of specific subjects of Vocational Education – an appreciation that is even stronger than that of professionals with an academic degree.

Jarbas Novelino Barato (Expert in Teacher Education) – A few years ago, I was watching television with my father, who is a construction worker, and we saw a government ad on popular houses. He made the following comment: "Twenty years in order to pay for a 30m² house (that is, a shack); the material used in the construction has an inferior quality and won't even last for five years; and it will take the buyer twenty years to pay for it… They are turning a right into a favor".

I am mentioning this episode because, in the discussion on Vocational Education, there is much insistence in the importance of an education that can lead the worker to develop a critical worldview. It is believed that science is an essential vehicle for it, while the importance of specific knowledge is ignored. I insist in the importance of specific contents, in the knowledge that the worker attains in the course of his or her own work. This knowledge can indeed become an important tool for a critical worldview. The making of things qualifies the worker for understanding certain relations within the world in which he or she lives.

Technical knowledge is a form of intervention in the world, and a form of production that qualifies the individual to understand this world. I am concerned about the distinction between knowledge and skill, as if a skill were only a mechanical application of thinking. Such duality ignores that historically, it was the hand that educated the brain, and not the opposite. It is important to take up to the agenda of discussions what I call knowledge in work, which is not obtained through the explanations of science about work processes, and, instead, through contents that make such knowledge possible, i.e., contents from the standpoint of the worker him- or herself.

Amin Aur (UNESCO Consultant) – What type of teacher is needed for Upper Secondary Education – either without integration, or of the integrated type, or even Vocational Education of Secondary Level?

Such teacher must have pedagogical training that goes beyond the specific knowledge of his or her area. A Physics teacher is not only a physicist. He or

she must receive a type of training capable of turning him or her into someone who transcends this frontier in order to develop work that stirs the personal and social development of students; in other words, a type of training capable of transforming a teacher into an educator. The same applies to the teacher of a vocational area: if one is not a nurse, one cannot teach nursing; but one must go beyond that, even in common Upper Secondary Education, where, due to the inexistence of a formal requirement, many teachers of Chemistry, Physics and Mathematics do not hold a specific teaching degree, but instead are engineers, doctors, dentists, pharmacists and lawyers who teach due to the lack of people with a teaching degree. There are certain "islands" that have already equated this problem, such as the Federal Network. This also took place in some states, such as the case of the Paula Souza Center in São Paulo – which, more than an island, can be considered even as a peninsula. These are specialized public institutions aimed at Vocational Training. Therefore, a culture of appreciation of teachers is created in these institutions. In the networks of the state secretariats of education, this does not take place. General education is appreciated, along with basic information and citizen education, but teachers seldom go further in undertaking the development of citizenship, as they are almost always limited to teaching their individual subjects.

Not only in Vocational Education, but also in Upper Secondary Education and in Basic Education, many teachers are not educators in the sense of reaching beyond the scope of teaching one's own specific subject. What turns them into educators? Is it the formal pedagogical complementation? Or the special program of pedagogical training? I have my doubts, because all this has turned into a formality, a mere diploma so that the professional can be hired.

In a general way, public universities do not offer a special pedagogical training program. Such courses are only taught on demand when requested by the state secretariats, as pedagogical training is considered a second-class activity. In São Paulo, none of the three public universities offers this type of course. Instead, it is a private university that offers it. The big universities do not open their doors to this type of student. The duality is in everything, even in the speeches in favor of democratization.

I believe that this necessary pedagogical training is secured by inservice capacity building in each school. Each school must play the role of providing

inservice education to its own staff – this is an old buzzword, and it is true. It is in the discussion of day-to-day life, in the restructuring of the curriculum, of the study plans, and in the joint construction of evaluations that the teacher is able to reach new levels as an educator, whether or not he or she holds a teaching degree: one must learn by doing. What matters is that the school must be a place for training, it must allow inservice training in terms of reflections and discussions, and not concerning education around the world. This takes place in the daily cultivation of training around the school project, around a well-built curriculum, in which all schooldays are taken by all the subjects, and one which is not only a schedule, but is also open for components that go beyond class activities. If the curriculum and the organization of school activities does not include the time and space for extra activities in addition to the regular subjects, there will never be the formative work of a creative, ethical, political and inventive citizen – an individual who will be able to keep learning by him or herself.

After all, who must become a teacher? Unfortunately, the legislation imposes a restriction with the demand for a degree so that an individual can be hired, but it also restricts the General Education subjects – even though such restriction is not universally present. Why should it be present in Vocational Education? I believe that Upper Secondary Education schools, whether integrated or not, must open themselves to teachers who do not have a degree. In order to serve students with such different interests in regions with such different socioeconomic and cultural standards, other actors are necessary, including sports technicians, theater directors, band conductors and arts professionals in general, including painting, sculpture, circus, and so on. Where in the curriculum is the place for other actors besides the teachers?

Much is said on integrating the school to the community and to the world of labour, but the school is living in a bubble. It is necessary to take the world to school, and to have the school open itself to the world with activities of extension and community work. The important thing is that a part of the curriculum must be challenging, and open to innovation and imagination.

Regina Cabral (CEMP-MA) – In order to enhance the quality of Upper Secondary Education in general, and of integrated education in particular, training alone does not solve the problem if one does not firmly consider a broader appreciation of the teachers. In truth, all professional categories are

corporatist, and this is harmful in all fields: judges, businessmen, doctors and teachers. Unfortunately, it is a fact that the teaching class is disintegrating in free-fall depreciation. If nothing is done in a broader sense to increase quality through concrete measures to increase salaries, more rigorous public examinations and a respected and desired career, no discussion on the training of teachers will solve the serious problem of quality in our education.

The teacher is a professional in one of the most strategic areas in any country. Education is strategic because we must give access to the best possible training for Brazilian people, i.e. to train the professionals who will be involved in the development of the country. The career of a teacher, as well as the career of a health professional, should be a State-career, so that the Federal Government could contribute to the states and municipalities by taking up the teaching career in all public schools of the country. This would be perhaps the concept of a national school, in which the Federal Government could have the role of securing the teaching class, not as a federalized system, but independently from the federal, state and municipal levels. It was a loss when, in the Bresser Pereira reform[61], education was not included as a State career, unlike what happened with other careers.

Further appreciation of the profession is the solution for Teacher Education: this is what triggers an interest by good professionals in becoming teachers; and not the many special programs for Teacher Education.

Before taking up a teaching course, the professionals need to know what they will be teaching. In the process of their inservice education, and in the continuous discussion of the school's educational process, they will expand their philosophical and political knowledge and commitment. One will seldom find a "complete" professional.

Irailton Lima (SEE-AC) – According to some researchers such as Marisa Ramos and others, the traditional structures for Teacher Education do not meet the needs of Vocational Education. And an appropriate form of training structure is yet to be found.

---

61. The federal administrative reform was implemented through a constitutional amendment in 1998, coordinated by Luiz Carlos Bresser Pereira (Minister of Administration and Reform of the State in the government of President Fernando Henrique Cardoso). It established the separation between the so-called strategic nucleus (including the exclusive activities of the State, such as legislation, regulation, supervision, promotion and design of government policies, and institutionalizing specific careers for these activities), on the one hand, and on the other the remaining functions considered as non-exclusive of the State (including auxiliary and support activities, as well as services seen as having a competitive nature, among them education, health and social assistance).

We have worked mainly with teachers who do not hold a teaching degree. Experience shows that the real leap forward is in the use of methodologies, in how the teacher will work in daily life, and how he or she is prepared to mobilize different methodologies along with the students. We are very attentive to the active methodologies, in order to step beyond the conventional model of class lessons and of a hierarchical relation between the teacher and the student. As a matter of fact, we do not refer to teachers as teachers but as mediators of learning. One detail: it is easier to work with innovative methodologies with teachers who do not hold a teaching degree than with those who do, as the latter tend to slip back into the standard mode, i.e. to the way they are used to doing things, which brings them security – whereas the teachers who do not hold a degree are more open to innovation.

When asked about when we are going to provide pedagogical training to those teachers, I reply that we must take it easy. In the state of Acre, we have difficulties with the Federal University, and we believe that there will be a retrocession in the educational process if our mediators should seek a teaching degree there. Therefore, we are facing a huge challenge.

Marilza Regattieri (UNESCO) – I would like to say that the professional ability of a good teacher is due mainly to his or her training path as a whole, which goes beyond the school and academic spaces, encompassing what he or she has been able to learn in life. The individual who has been through an entire process of academic training and has a teaching degree does not necessarily have (and is not necessarily able to pass on to his or her students) this worldview that constitutes a Comprehensive Education. There are several studies that highlight various problems in relations within the school, the different learning conditions provided by the school due to racial and socioeconomic issues. Those conditions have an impact on the process of securing a comprehensive, complete, quality education towards citizenship. If, on the one hand, it is assumed that teaching degrees should secure instruments, values and contents so that the teachers will be able to aid in this comprehensive training of the students, on the other, one cannot refrain from pointing out that the schools and teaching degrees alone are not capable of this. Other spaces of learning, outside the school, must also be considered.

The school that provides Vocational Education for licensed areas or other technical courses must not only follow up on its former students, in order to

see how learning materializes in their personal and vocational paths, but it also needs to take an attentive look at the needs of the local productive arrangements, and the capacity that these arrangements have of employing trained professionals, in order to avoid frustrations and competition, instead of contributing to the creation of work opportunities. This is related to Teacher Education inasmuch as some educational institutions tend to organize their curricula according to the profile of the professionals they already have. If, on the one hand, precarious ways of hiring are a problem in Vocational Education, on the other, the incorporation of those teachers into the staff through public selective processes (exams) brings other complications, such as courses that do not change and schools that do not renew themselves.

Gabriel Grabowski (Funding Expert) – What would be the appreciation of teaching in the country? One path would be to include it among the State careers, as was pointed out by Regina. Nowadays, around 60% of the enrollment registries for Vocational Education are found at private institutions. Without having the precise figures, I am supposing that most teachers are linked to the private network, because teaching almost always follows along with a similar proportion to enrollment. The states are in the second place in terms of enrollment figures, the Federal Government is in third and the municipalities are fourth. I know that there are studies and researches on the theme undertaken by teams of the federal universities of Rio de Janeiro, Santa Catarina, Rio Grande do Sul and Minas Gerais.

If those problems are so serious, they may become even worse with the proposition of a quick and rushed distant learning teacher training course, through the *Universidade Aberta* [Open University] initiative. That is not my area, but I have taken part on discussions and I got more and more scared of the superficial, rushed and unqualified way the country is attempting to meet this demand. This also takes place in Vocational Training, where we found they are training technicians in half a year or a year, or giving technologist certificates after one year and a half. Everything is getting rushed, maybe because there is a big concern about statistical figures instead of the quality of trained teachers.

Concerning Vocational Education, in some states the service contracts are temporary, on an emergency basis, and precarious, with salaries that are lower than those of the rest of the teachers. How can one expect quality under such circumstances? There are exceptions, such as Paraná and Ceará

(and the Federal Network itself), with a career plan and better salaries. In the private initiative, the contract formats are quite different: in Rio Grande do Sul, for instance, there are instructors, tutors, monitors and only a few teachers. Labour negotiations take place with the workers' unions, and not with the teachers' union. For this reason, the teachers' union is fighting so that everyone can be considered teachers. If the strongest supply is private, and the professional is not even recognized as a teacher, what role does this professional play in Vocational Education?

The training that is demanded is not under the dichotomy of general *versus* specific, but in order to be a teacher, it is necessary to know some general contents, and not only the specific contents. The career and life paths build this professional. It is necessary to have a minimum level of general contents; one cannot simply recruit any professional who has knowledge or a specific ability and thrust him or her into a classroom with 50 or 100 students. Nowadays there is even a communication capacity for which the teacher has not been trained, due to the fact that distance education classes have a different standard and a different pace.

Sandra Regina de Oliveira Garcia (SEED-PR) – I am concerned with both pre-service and inservice education. Pre-service Teacher Education must be integrated, and not only for the technical area. This brings up the issue of our teaching degrees. Our teachers get the degree in order to become researchers: they take the History course to become historians, and a Physics course to become physicists. At the end of the course, they find out that they will be teachers. This is when they must take those "boring" Pedagogy classes that deal with evaluation, curricula, methodologies and so on.

The fact is that teaching degrees are not training for regular teaching, or for vocational teaching, or for Youth and Adult Education. We, the federal, state and municipal governments, need to move forward in this dialogue with the universities about the degrees.

In the case of Vocational Education, maybe things are getting a bit more complicated. Many professionals of the technical areas seek a college degree in order to become self-employed professionals; but after receiving the degree, the possibility dawns on them of becoming teachers.

In Paraná, those professionals take part in the course and move on to a probation internship, which is the pedagogical complementation. It is not the ideal situation, but we still haven't found a better alternative. MEC is

proposing alternatives, but they are not very different from what already exists. We made an agreement with the state universities so that they could teach pedagogical complementation for the teachers of the integrated course, as we understand that they need this training. I will give you an example: we have a Technician in Agriculture and Stockbreeding course with a high number of teachers who have a masters degree and a PhD; when dealing with Secondary Level students, they are unable to communicate with them, and they do not know how to evaluate these young persons; they give them assignments equivalent to those they had to turn over in their postgraduate courses. These teachers have technical knowledge, but they need to know how to work with students at this educational level.

Inservice Teacher Education brings me an even stronger concern – as many options have already been tried and tested: joint, separated, with refresher courses – because we must bring the teacher up-to-date, and this is even more necessary in the technical area. We have strongly invested on inservice Teacher Education, and we need to discuss the best alternatives. I'm talking about a continuous type of training in which the teacher leaves the classroom and then returns. If it is not done as a back-and-forth movement and as a strong dialogue between theory and practice, it results in very individualized reflection and knowledge, and everything ends up the same way as before. This happens because we, the teachers, are very individualistic; and also because on the way back to school, there are no spaces where knowledge can be socialized, not even in the states that have implemented an hour/activity system. I am convinced that inservice education must take place at the school and by the school.

Jarbas Novelino Barato (Expert in Teacher Education) – I recalled that in the state of California, in the USA, 90% of the candidates to the public exams for the teaching profession hold a degree from public state universities. Only 10% of the candidates come from private institutions. In Brazil, the exact opposite takes place, and maybe we will not see even 10% of participation by public universities in Teacher Education.

Regarding inservice Teacher Education, it is necessary to think through the method issue. To update teachers through courses and explanations of the pedagogical principles is something that creates a gap between what one does in the classroom, and what one hears. I think that the starting point is the making of the teacher. An experience that we have developed started

from examples of lessons prepared by the teacher and discussed with his or her peers. From the observations of these peers, there was a discussion on education, knowledge, and the process of learning and teaching. Such methodology is important, especially for technical areas which, for a series of reasons, we educators look down at and dismiss technique as knowledge, do not consider one's abilities as knowledge. Hands-on work with technology is an essential part of understanding what technology is.

In this experience of observing practice, of considering the making of the teacher, what we did was appreciate technical knowledge. During one activity of inservice education in which the teachers chose the theme that they wanted to develop, two teachers prepared a demonstration class on types of hair. It was a very well-done class, according to the pedagogical principles, but everything was only worked out in a verbal way: no one touched another person's hair in order to apply all the classifications that they had explained: thin hair, thick hair, brittle hair and so on. In the final comments, I asked why they refrained from using visual and tactile explorations with the available hair samples of the 30 people who were present. They replied: "This is a theoretical lesson, and we are going to lay our hands on real hair only in the practical lesson". The pedagogue is at fault here, who, while dealing with the relationship between theory and practice, shrugs off practice as a form of knowledge.

This example of the divorce between theory and practice, between knowledge and ability, is very harmful for education in general; and it is even more harmful for Vocational Education, as these categories disqualify work as a form of knowledge. It is not by accident that people say: "knowledge and ability – ability comes afterwards". That is not just because of phonetic comfort, such as "coming and going", but because of priority: what comes second is the subordinated part of the pair, it is less important, it is not in first place as a highlight: theory and practice, knowledge and ability, and so on. I always talk about this, but no one listens. This is my way of stressing a position, in a certain way, in order to give a voice to the work and the knowledge of the worker.

José Antônio Küller (Curriculum Expert) – As for initial Teacher Education, we find the same duality that we have discussed for Vocational Education. On pre-service Teacher Education, the integration of the curriculum is as important as on Vocational Training, and very difficult to attain.

Roberto da Cruz Melo (SEC-BA) – Teacher education was an almost exclusive problem of Basic Education, but with the expansion of Higher Education, it is present nowadays also at college level. Since this level must provide Vocational Training, the qualification of teachers is an increasing problem at universities. This is another contradiction that involves training.

Irailton Lima (SEE-AC) – In an evaluation of the educational policy of the state of Acre, which took place in 2002, some very interesting conclusions emerged. We had invested a lot in Teacher Education and in raising the wages of State Network teachers. In the previous years, we had doubled the wages and undertaken a very strong work along with the university in Teacher Education. And our expectation was that, somehow, the school would be "stirred", and in particular, that there would be impacts in the classroom. But this did not happen. Nothing was happening in regard to the quality of teaching.

As offspring of the social movements, we believed that by raising salaries and improving Teacher Education, education in general would naturally follow suit. But then we realized that the investment in training and salaries, by itself, does not improve education unless management receives proper attention. In the career plan, we did not connect remuneration to performance. In general, it is very difficult to make this connection within public service, and this is a big problem. We had not created mechanisms to approximate the more general policy to the daily life of the school, with follow up – not in order to restrict the autonomy, but to give advice, to be more present and provide the schools with the necessary tools, so that they may implement their improvement strategies.

So we incorporated management to our strategy as a fundamental component of the process. We kept increasing the volume of resources for education, improving the salaries and investing in Teacher Education – among the Brazilian states, Acre has the second highest basic salary, and is the first where 100% of the teachers have a college degree. But we also take care of the management, and this makes a whole difference. Thus, for the final grades of primary teaching, we rose from the last place in the IDEB to ninth place in 2008.

Jarbas Novelino Barato (Expert in Teacher Education) – A final remark: the latest researches ended up rediscovering that the development of knowledge at work takes place in the relationship between instructors and

apprentices in communities of practice, in the search for significant knowledge in a particular area; in other words, communities that have a common interest and promote social practices whose object is labour, i.e. the fulfillment of a career profile. This recovers the meaning of a craft, of one's work as an art, and, above all, of the value of one's work – which would have methodological implications. The craftsmen of the past saw themselves as artists, and for this reason they appreciated the value of their work. In the view of an artist, of a master, it is important to let people learn about the function of the work that they intend to execute, and about the value of a job well-done. In his book "The Mind at Work", Mike Rose describes an episode in which the student of an electrician course says that he will redo work inside a brick-and-mortar wall. The reason: in spite of being correct, the work done did not look good. Questions arose about how whether or not the job was beautifully done, no one would notice that and what mattered was that it was correct. But the student said that it was his job, and for that reason it should not look bad. Lessons such as that one may change a lot about the way a craft is taught and learned. The axiology of work can only be learned through actual production. This proposes a challenge for the training of the Vocational Education teacher: the educators of educators must appreciate the knowledge that is built in the social practices of productive activities in order to think or rethink questions of a methodological nature.

Going back to the central theme I insist on: the making of things must be studied and re-studied in teacher training processes for Vocational Education. Pedagogical capacity building is necessary, as long as it is done properly, and taking into consideration the need for a hands-on complementation. When one speaks of work as a social category that prevails in the constitution of citizenship, in political participation, it is necessary that the teacher, whatever his or her specialty area, does not leave aside the knowledge that workers produce in their daily activities.

A school is above all a place for reinventing knowledge. But knowledge relations take place outside the school, including the knowledge that is born from the weavings that take place in the communities of practice where workers exercise their crafts and their art.

School and Work: Dialogues Between Two Worlds

Commentator: Irailton de Lima Souza[62]

The present debate is particularly timely and needs to be taken further in the State Governments and at the Ministry of Education, because it is in the order of the day: it takes place while the discussion of program *Brasil Profissionalizado* is in course.

The UNESCO study undertaken by Prof. Amin didn't shed much light on the relationship between school and the world of labour – this is disappointing, because the theme is indeed extremely relevant for the success of an integration attempt. It is directly linked to a theme that I have pointed out as we discussed Teacher Education, namely management; both in the broad sense of a network, of the educational system, and in the sense of the micro-environment of the school.

Bringing the school and the world of labour closer together is not easy. These are two very different worlds. The world of labour mostly looks at the school with some distrust and tends to consider it as something outside reality. In the structuring of our Vocational Education policy, we have talked to businessmen, managers of productive organizations and managers of non-governmental organizations. At first, the conversation was cold because there was a huge distrust in our capacity to understand what takes place in the world of labour, to provide answers and to approximate the school to what is demanded by the community. Until very recently (and in some sectors, such concept still goes on), the world of labour saw school as an unnecessary thing, because it was a space of training for those individuals who would go to university, and then later on would occupy executive positions, but not for the majority of the workers.

62. Director-president of the Dom Moacyr Grechi Institute for the Development of Vocational Education, linked to the State Secretariat of Education of Acre (SEE-AC).

The school, on its turn, overlooks the productive world. The active community inside the school has almost never experienced a production environment. In general, this public is made of the young individuals who take the teaching degree path, who were approved in a civil servant career entry exam or went to a private school and then started to teach. In one of the debates on how to bring the school and the local productive arrangements (*arranjos produtivos locais* – APLs, in the Portuguese acronym) closer for the construction of the political-pedagogical projects (PPPs), I observed with attention the amazement of most education colleagues at the language used by the economics crowd. The latter were talking about productive arrangements, clusters, networks, and so on – a completely foreign language for the education community.

The peculiar environment of real economics is unfamiliar for most actors in the school. Dialogue is also hindered by the extraordinary differences of pace in the management of the processes. The school, as part of the public management, has a culture that is different from the productive world – from the private world – along with quite a different language.

There is a question in the background of this debate: must education and the training offered by the school be directed to the market or to local development strategies? The CEMPs, for instance, provide integrated education aimed at the development of that particular territory, and not at the market. What means must be created for the promotion of an effective dialogue by the school with the local development strategies and the actors involved?

At the beginning, I pointed out that this is a question of management. We have recommended that Vocational Education, either strictly speaking or integrated to Upper Secondary Education, must necessarily take a position in the broader context of the local development policies. It is necessary to know those policies, to interact with them and the actors who formulate or implement them. In the small and medium states, it is actually not that difficult to promote this dialogue. But in the big states it is a quite complex task, and the market tendency is to aim their focus on what is researched about existing demands.

Along with the strategic positioning of the school and of the policy of Vocational Education or Vocational Education integrated to Upper Secondary Education, it is fundamental to create mechanisms of dialogue and follow-up on the implementation of the curriculum, which must be contextualized. How to build such a curriculum? In general, the school does not create its

own curriculum. Even when there is space for this creative process, the curriculum is seen as an exclusive task of the school community – which is an absurdity for Vocational Education or for integrated Upper Secondary Education. We do research, but also workshops on how to build the profiles, as the profile cannot be a technocratic decision of the policy manager, but, instead, a shared decision. Besides being built based on the profile, during its development, the curriculum must keep a dialogue with the real world, with the field of work in which the professional will act. How best to do this?

It is necessary to reposition the school and, to this end, change the culture of the school community, change their behavior and create conditions for a new attitude. The school community that offers only Upper Secondary Education and starts to work with Upper Secondary Education integrated to Vocational Education will need to learn how to deal with many other themes – such as follow-up on the former students, effective dialogue with the field of work, productive arrangements, organization of systems, social organization of work, collaborative productive and consumer networks, and so on. But nowadays, it is not prepared for those themes. This means to review the teaching degrees and pedagogy courses, which need to incorporate new challenges and tasks.

Discussion: the World of Labour and Education

Marieta Falcão (SEED-SE) – In Sergipe, our Secretariat of Education has too many departments, is too isolated and full of projects. This Secretariat reproduced the model proposed by MEC, adding its own initiatives. We have management models 1, 2 and 3; proposals for follow up of former students 1, 2 and 3; and many consultancies and products that have not been implemented. It seems that the Secretariat did not really know what it wanted, and that it did not have an established axis. We only have two centers of Vocational Education, which were built with PROEP resources: one of them is in the region of the Lower São Francisco River, was opened in 2008 and soon closed for reforms, due to problems generated by the extended construction period, which began in 2001; and another one in Aracaju [not yet inaugurated at the time of this workshop]. You see, there is this huge difficulty to construct buildings, which is something tangible; now imagine how difficult the construction of a State Vocational Education policy is!

The new office holders of the Secretariat started an administrative reform with a change of paradigm in regard to principles: hearing the demands of the different sectors and making adaptations. The prospect is to build a less vertical structure with several interfaces, in order to integrate the sectors, which nowadays have virtually no communication among themselves. We want to promote a more extensive integration towards the different sectors of the community, but it will not be easy.

We took the discussion on the Vocational Education that we had, and the one that we wanted, to the community – not only the school-community. Based on program *Brasil Profissionalizado* and on the proposal of integrated Upper Secondary Education, we held seminars and meetings to open the debate to the participation of other social segments: the productive sectors, the S-System, unions and organized social movements wishing to take part. We held those debates both at the State level, with the participation of all formal, State and non-governmental institutions, and at the school level.

At the school level, the reaction was quite negative, contrary to the proposal, maybe due to the existing gap between administration and teachers. The teachers and the union, which is strong and represented in the parliament, opposed it from the start. Only after a lot of discussion we are starting to de-construct the attitude of total distrust in relation to anything that may come from the Secretariat. We are de-constructing clashes and perceptions, but it is difficult in the short term to foster dialogue among professionals, parents of students, the productive sector, experts and technicians of the Secretariat of Planning who have mapped the territories and the regional and local productive arrangements.

The adhesion to program *Brasil Profissionalizado* took place mostly due to an interest on the financial resources, but not solely for this reason. Recently, as we were not able to advance in this process of persuasion, we lost the opportunity to have access to a part of these resources. We are aware that it is not enough to count on financial resources only without having the support of the actors.

What is the perspective for an integrated curriculum? In 2009 and 2010, there will be 24 schools of integrated Upper Secondary Education attempting to have their courses aligned with the same axis – and it is not easy to convince the community that this helps overcome a big difficulty that we have faced in hiring professionals. The state is small and has already reached

its limits in terms of hiring, considering the Fiscal Responsibility Act. We are trying to implement the courses in schools using one single axis in order to make not only hiring easier, but inservice Teacher Education and updating as well. Furthermore, we have had difficulties in finding professionals in some areas of the territory, and we end up seeking them elsewhere; this results in a concentrated workload, which also affects the students. Those are the problems of a small state with a very poor provision of Vocational Training.

Many of the issues raised here make me think that we must still undergo a ripening process for the internal issues of the Secretariat before we effectively implement the integrated course and opt for a particular path. There is political will, the team of the Secretariat is renewing itself, achieving a stronger plurality and coming closer to the public university. But the cost of the schools is a big concern: the school of the Lower São Francisco River was already presenting problems two months after it was opened. What one sees in the recent history of the country is an increasing decay of the public facilities and services, as proved by the state of the CAICs[63]. Many people say that the solution is to federalize it. But this would have serious implications, because it would be like demonstrating that the state is not competent enough to manage Vocational Education on its own territory.

The experiences and debates of this workshop are turning out to be very enlightening on the finding that we are not so distant from the national reality, which motivates us in the construction of this path.

Irailton Lima (SEE-AC) – In the state of Acre, we have not advanced regarding the integrated secondary course, and if it was understood as such, then I have not expressed myself adequately.

One must not only be willing but it is also necessary to be politically decisive and to have the capacity to translate this decision into action, including from the financial standpoint. It is also necessary to use the context as a starting point. When MEC started to talk about integrated Upper Secondary Education, we had already initiated a process of building a new proposal, both for Upper Secondary Education and for Vocational Education. Thus, even though we respected the educators and the theoretical constructions of

63. Centers of Global Attention to the Child and Adolescent – those schools were built with funds from the Federal Government in the early 1990s, and their expected activities included daycare assistance, pre-school and elementary school; health care and basic assistance; community and sports activities.).

the Ministry, we decided to go ahead with our proposal, because we had not yet sufficiently advanced in order to know if it would work or not. Yet, we remained open to what was happening.

It was then that people of the rural environment expressed their satisfaction at the arrival of Upper Secondary Education to their communities, to the settlement projects, to the State forests and extractivism reserves; yet, they clearly expressed that they did not want an education dedicated to preparing youth for university. For them, rural exodus was the problem: the students would leave their areas to study in the city after completing the primary level, and never returned. So what they were demanding was an education able to provide these young individuals with the opportunity to learn the necessary abilities in order to take care of a family-based or community productive unit. The community's demand was for context-based Upper Secondary Education (they did not call it "integrated"), able to meet the local needs. We started from the concrete reality of popular demand and began by what we considered to be the most important and complex part: the curriculum. This was not an exclusive decision by the technical staff, but society's decision in order to match the technical solutions ensued by local questions. This brings a huge political strength to the process; and thus we are starting our experience of integrated Upper Secondary Education.

Washington Carlos Ferreira Oliveira (SEC-BA) – In the course of Irailton's presentation, I have not heard the expression "political-pedagogical project", even though it was still underlying in your explanation. I would like to know more about the political-pedagogical project for each school in the experience of Acre.

The relationship between work and school is at the root of the issues that we are debating, and it has a lot to do with invisibility – an issue raised by Jarbas. In this regard, I propose a brief exercise for ourselves: how many of us have looked in the eyes of those who served us water and coffee? How many of us know whether it was the same person or not who served us water in the morning and in the afternoon? The invisibility factor is related to the so-called "social waste", with what we do not want to see, when we render the black person, the waiter, the receptionist, the cab driver and so on invisible. Even though we already have a wider comprehension of things, in our daily lives we do not realize how strongly we are reproducing this prejudice. We make a separation between the professions that are "noble" and those that

are not, in the same way in which we make choices on what is and what is not important.

Mixing the macro and the micro dimensions in our daily lives is a huge difficulty for those who deal with government policies. The relationship between the school and the world of labour includes the challenge of translating and making such understanding of society and its existing structures visible. We need mechanisms so that such a political concept can get to the other end of the line. As a rule, this becomes stuck due to the lack of visibility of how these structures reproduce themselves in the daily life.

Janete Mércia da Silva Pereira (SEB/MEC) – When Marieta pointed out the distance between the teams of Upper Secondary Education and Vocational Education in Sergipe, I felt I had to speak. I am a civil servant who joined MEC through entry exams two and a half years ago, and I experience a very similar situation. I work with Upper Secondary Education at the Secretariat of Basic Education. The contact that we have with the Secretariat of Vocational and Technological Education, which is just in front of our office, is basically the physical existence of the corridor. Even though the minister has a systemic view of the PDE, this view has no reach inside the Ministry. We have a patrimonialist structure; the programs do not communicate with each other and turn into fiefs, and this is reflected at the other end of the line. By taking part in a working group of MEC secretariats for the implementation of Act 10639/2003, which includes the history and culture of Africa in the curriculum, I experienced a situation with this type of Patrimonialism. People were used to referring to the so-called "Janete's law", as an example of the difficulty to reach a systemic view of the policies.

Some public managers and servants point out the need for MEC to develop the policies that it preaches, in an integrated way. To enable a glimpse of the systemic view that the Minister is pointing at, the PNE must move on to a stage of integrated discussion.

Sandra Regina de Oliveira Garcia (SEED-PR) – The school must dialogue with the world of labour, both with the producer and with the workers. It is also necessary to get to know the situation of the state and to know where one wants to go, which means to establish a very close articulation with the Secretariat of Planning, so that a picture of the state can be reached. We must hear all the parties involved in the project for the state and establish a relation with the other secretariats such as Health, Industry, and Commerce,

because Education cannot simply go around talking to itself and must take into account the relations that are taking place in the State as a whole. After all, we are not giving degrees to extraterrestrials.

Our State has two characteristics in terms of production: agriculture and services. It is a State that is moving towards industrialization, but is not industrialized. We do not have as many local productive arrangements – the APLs –, but we know the economic trends in each region. Our indication for the provision of courses was that this picture and these trends should be taken into consideration in a dialogue with all these actors, but there were problems: when the decision to offer them was taken only at the principal office's level, the course did not make progress. It was different for schools that made the decision along with the entire school community and with the local community as a whole. Why? Because the community took up the school as the space of a collective victory, and not as a place of authoritarian decisions made by the school principal.

One of the difficulties of the State network is that the provision of courses ends up being a task for the field of services. This takes place due to several reasons: the labs are more basic and use simpler technology than, for instance, the industry labs, or than the health labs; it is easier to recruit professionals; there is a stronger possibility of diversifying the courses. In a school that provides several courses in the field of services, the professionals who teach in one course are key components of practically all the other courses in the field. Excessive fragmenting is a factor that makes things more difficult, and so we are strengthening the vocational field of the schools (some in the area of health and some in administration, for instance), in order to foster a stronger dialogue and permanence of the teachers. In an administration school, for instance, one may diminish the provision of the traditional accountancy course and increase the provision of other correlated courses such as clerkship, human resources, computer science, logistics, and so on. We have used the occupational roster of the Ministry of Labour in order to define the vocational fields of the schools and to avoid extinguishing courses that, in some cases, may no longer have an audience. This is a form of assisting the more specific needs of the municipalities without overstepping the conditions of the state government, which does not have the necessary competitiveness in order to open and close private school courses.

I consider the initiative of the National Catalogue of Technical Courses important, even amidst the fear that it may cast some limitations to the

alternatives. But it prevents the same contents from being taught in different courses just for the sake of selling them.

Irailton Lima (SEE-AC) – The construction or re-working of the political-pedagogical project is a decisive moment for facing prejudices and creating the conditions for dialogue; in this project, the school community is forced to talk about its reality and can be encouraged by the management to open this debate for the participation of other actors. It is an indispensable strategic moment for the implementation of integrated Upper Secondary Education, and a space so that an agreement can be reached between the school environment and the external public. We educators are used to closing ourselves behind the walls of our schools, but here we have the opportunity, through the dialogue with other actors in the reconstruction of this political-pedagogical project, to create bridges, to create effective means for a lasting relation, because the project of a school that works with integration must be substantially different from the project of a school that only works with Upper Secondary Education.

In Acre, along with the political-pedagogical project, we work with the school's institutional development plan, which encompasses the pedagogical, managerial and policy dimensions, projecting the school in the middle and long run, including in terms of provision. In these moments, the agreements are made in terms of offer profile. Getting the course offer attuned and finding the right course are apparently simple things, but in the daily life of the school, they are not. It is necessary to project scenarios, and not even the Secretariats of Planning are able to do this properly. And it becomes more and more difficult, the bigger the State is, because this diminishes the inductive capacity of the governmental power. Even when there is technical competence by the Secretariat of Planning, it is always very difficult to anticipate how the market will behave in the future.

In the small and medium states, where as a rule the direction follows the public investments, it is possible to build scenarios, even though with a big risk. It happened to us: the projection of demands for forest areas indicated a certain prospect; when the first students left for the world of labour, the government policy of development of the forest sector became stuck, due to some problems. For this reason, in a first moment, there were no working positions for them in the job market. Initially, we were very criticized – "the government is training young students for an area that they claimed was

important, but now they are unemployed". Two years after the first classes had graduated, when we undertook the research on the former students, we found that nobody was unemployed, and that the companies were on the search for new young professionals – actually, they were going all the way to the state of Amazonas, in order to recruit students from the Agricultural Technical School of Manaus.

The discussion brought up by Prof. Jarbas about the place of labour in our society and at school has a fundamental importance. I am one of those who are often leery when I hear our education folks talking about labour. When speaking of Vocational Education, anyone in my State would always open a parenthesis to say that this training is important, but the real fundamental thing was to enter college. We all want people to have broad opportunities in life, but that opinion sounded to me loaded with prejudice: the assumption that only through academic knowledge an individual is able to find his or her self-realization.

There is no escape from the duality of our educational system, which stems from our prejudiced view of practical work. I like Weber very much, I like the construction of the value of labour in the orthodox Christian view. As a child, I was among those who cursed Adam and Eve for having committed the original sin, for having been expelled from paradise and starting to live from the sweat of their faces, from the strength of their hands, from the work that they executed. In one way or another, the idea was stuck in my mind that labour is not a natural condition for men and women, and that work is really a punishment. Add to this, at one hand, the aristocratic culture that we have kept (one of the worst in Europe), and, on the other, the 380 years of slavery in Brazil. All this stirs our vision of what work is, to the point that it is so common for us to hear someone say: "I did not spend five years studying at the university in order to perform manual labour...". Laying one's hands on an object is seen as a task for the black and poor. To break with this prejudice and to approximate these two worlds is not that easy, but it is a challenge that must be faced in order to implement the proposal of integrated Upper Secondary Education.

Roberto da Cruz Melo (SEC-BA) – In Bahia, the expansion and creation of Vocational Education courses previously took place on a school-by-school basis, by decree, above all as part of a political game. Vocational Education was not a priority policy. In 2007, in the new administration, we stopped all

of that. We had modest enrollment figures, around 5000 to 6000 students in the State network, ten fragile agro-technical schools and some unfinished PROEP constructions. Even though 2007 was inert in those aspects, it was an extremely strong year from the standpoint of the dialogue with society.

There were two movements to consult society: the participative multi-year plan (PPA) and the conferences on Basic Education. The participative PPA involved all secretariats in a dialogue with the society and the 26 identity-territories, and allowed the construction of a mapping of Vocational Education needs in each territory. The local conferences on Basic Education reserved a space for Vocational Education – it received a huge audience, and almost a public clamor. Both movements made evident many demands for Vocational Education and a limited structure and institutional apparatus within the Secretariat of Education.

By decision of the Governor, a Superintendence of Vocational Education was created and structured into directorships: the Directorships of Institutionalization, of Pedagogical Development, of Pre-service and Inservice Education, and of Management and Planning. From then on, we began to discuss the space of Vocational Education.

An initial finding: it would not be possible to meet the demand for Vocational Education exclusively in the schools of Basic Education; in other words, there was no way that we could meet such a demand only through integrated vocational teaching. It was then decided that 26 territorial centers would congregate all modalities of Vocational Education, and that the technological axes would be established according to the regional vocation. The Secretariat of Planning provided the necessary information, and four structural technological axes were defined as "mandatory" (infrastructure, health, security and work, and natural resources), whereas four other axes were to be defined by the territory. Furthermore, it was decided that each territory would have at least five schools with integrated Upper Secondary Education, and with the entire necessary infrastructure to qualify for work. These schools with integrated Upper Secondary Education were allowed to develop only one technological axis, because in Basic Education the dispersion of axes makes management quite difficult.

In 2008, the offer of Vocational Education was expanded to 15.000 enrollments, and, in 2009, to 30.000 enrollments; in 2011, the goal is to reach 70.000 enrollments, which represents 10% of the Secondary Level enrollments in the State. The expansion did not result from the efforts of

one or two persons, but due to the planning framework of the government, whose indicator was the participative multi-year plan. The design of program *Brasil Profissionalizado*, by demanding planning by unit, helped create a network, and is not an *ad hoc* action.

Regina Cabral (CEMP-MA) – Why are we offering Vocational Education in the country? Historically, there is an alleged "entity" that demands it, i.e. the job market. But there are the needs of a population that is invisible, to which no one has looked in spite of knowing that it exists, and whose demand is not served.

I have an example: in Maranhão, in the region of the Lower Parnaíba, during many years there was a strong movement of rural workers for more education, for Vocational Education so that they could use technologies and improve their work with the land – but such a school never materialized. But migrating individuals did arrive with knowledge of the technology to work the land, to seek credit and subsidies. These were not necessarily people with money, but they had knowledge. They bought the land, planted soybean and now have occupied this region, which yields two soybean harvests per year. There are many airplanes and pesticides, and few workers, because several tractors are doing the work. And what about the population that had fought for years? It was left landless, without production, without work, confined in the periphery of the city of Chapadinha. It did not achieve the necessary minimum: education. In other words, this population is invisible to those who provide Vocational Education in the country.

When they had the land, they planted and they burned, but they did not have sufficient knowledge in order to improve and expand their production, to increase scale and income, and to appreciate their own land. Without more adequate knowledge and without funding to enhance it, the work with the land is strenuous and unrewarding; it is often seen as a punishment and not as something of worth. When development arrives in certain areas, those invisible workers are expelled from their environment, because nobody sees them. It is rare for development to reach them.

The question is not to offer what is possible, but what is necessary. This needs to be done so that people will not stop working on what they know how to do, but in the most adequate way to ensure a better living. It is necessary to think about the demand for Vocational Education for the settled families, for the producers of the entire country; it cannot be rushed,

as it has been so far, or else provided by people with weak technical knowledge. It is an imperative to have mobilization and critical training, but also the knowledge of technology.

Public managers roll their eyes at the sight of big enterprises, such as a steel mill, a plant or a refinery, but they are blind in relation to this population. "Why think about development in such a micro scale?" Yet, it is the micro-level that makes up the whole. Value and development can be generated through a large-scale enterprise or with the sum of many small-scale ones. This is a question that needs to be discussed. The poorest natives of almost the entire North and Northeast of this country are invisible, and thus become excluded from the possibility of development. Therefore, I believe that the important thing is to invest not in what is possible, but in what is necessary – not only for the market, which is this strong "entity", but for the population that is weak and invisible.

Jarbas Novelino Barato (Expert in Teacher Education) – I believe that there is an aspect that we still have not considered. It is symptomatic to talk about labour without mentioning unions.

At a certain time, my Pedagogy students were taking a licensing in supervision aimed at non-formal educational projects. Since this type of activity is not conventional, they were confronted with strong difficulties in finding internships. Whenever possible, I tried to look for a placement for these students in organizations that had differentiated educational projects. Once, a student who was a housemaid of a traditional family in São Paulo came to me to talk about an internship possibility. I directed her to a program that combined primary education with cultural and union training, but she knew that at that time I was linked to an international cooperation project between Brazil and Canada involving executive secretaries of big companies. My student did not want to take the internship at the union. She insisted that I found a placement for her in the international cooperation project. She did not see an internship at the union that represented her own professional category in a good light.

This example illustrates some issues. How does education see the integration with the world of labour? I am concerned because I see few bridges built between academic circles and the world of labour, above all with the unions.

Gabriel Grabowski (Funding Expert) – It is necessary to ask: why does she think like that? The school and the university are parts of the Brazilian

society; they are institutions less than a century old, and they are not what makes Brazilians think the way they think. They may even contribute to such viewpoints, and they may not have the competence to reconstruct this type of thinking. Some people believe that it is Pedagogy or the teaching degrees' fault, or else that it is the school or the academic environment's fault. But this is a reflex of society. It is within the society that the origin of such view must be sought instead of pointing it to Pedagogy, the teaching degrees or education – which may actually be reproducing and reinforcing such prejudice.

The university must be changed, and with it the courses, the Teacher Education and so on. But I find it unsettling when the responsibility for this type of worldview and society is attributed to education. Education is conservative because society is more conservative. The school and the university – and not the market – are the spaces of criticism and reconstruction.

Roundup of the Discussions

Commentator: Claudia Jacinto[64]

Before any comments, I would like to say that I am learning a lot, and that I am starting to reach a better grasp of Upper Secondary Education integrated to Vocational Education – from a distance in Buenos Aires, it was complicated to understand it. But I must admit that, as I do not speak Portuguese, I have not been able to understand everything that has been discussed. Therefore, in this roundup stage, I may actually omit several important aspects of what has been discussed.

I will attempt to point at connections in the discussions of this workshop with themes that have emerged in the studies that we made at RedEtis, in order to establish a dialogue. To this end, I envisage a few discussion axes in the form of questions – for which we are all in search of answers.

What is the role played by labour at the school?

Two key ideas have permeated the discussions: up to what point does the school reflect the place occupied by labour in society? And what is the place of labour at school – especially in Upper Secondary Education?

In the debates of this meeting and in documents of several Latin American countries that we have analyzed, there is an emphasis on the connections between science, technology and work, as well as between local development and social inclusion. In those documents, there are general discussions on the place of labour, with the socio-historical, epistemological, ontological and subjective complexity that characterizes the theme. Yet, it is more an academic, ideological or doctrinal discussion that does not clearly permeate the curricula. What does permeate the curricula is especially training for the world of labour.

64. Coordinator of the Latin American Network of Education, Work and Social Insertion (RedEtis), of UNESCO's International Institute of Educational Planning (IIEP), in Argentina.

As the discussions have highlighted, there are knowledge-contents that arise from labour itself – not all are restricted to technological or scientific aspects. The incorporation of the knowledge contents that belong to labour creates many institutional and pedagogical challenges for the schools. The school, above all in Upper Secondary Education, is the target of many demands – but it cannot aim at teaching everything about work. Much of the learning takes place in the hands-on situations at work in the course of life.

Ethical and social dimensions configure the culture of work – a theme that has been present both in this forum and in some of the Latin American documents. There is a certain consensus that it is not possible to talk about the world of labour (including the job market) without pointing at its ethical and social-construction dimension.

How does work knowledge reach the school?

In other countries of Latin America, we do not find proposals for introducing (let us put it this way) Vocational Education in Upper Secondary Education with the same strength as in the proposal of integrated Upper Secondary Education that was formulated in Brazil. In the educational systems that we have analyzed, the work contents are introduced at the school based on certain formats, which I have referred to as specific "devices".

It is important to note that this introduction takes up two differentiated features. One of them, "lighter", is formed by proposals that do not implicate a general transformation of the curriculum and can add themselves to the school activities through actions of socioeducational orientation, or linked to entrepreneurship, which may take shape as transdisciplinary projects. The other feature is formed by more substantive proposals, which mean deep curricular changes and refer to the introduction of internships or Vocational Training.

In the first case, there is a risk: several researches indicate that, in the school, everything that is crosscutting and does not have a curricular space of its own ends up not existing. However, there are those who advocate that well-articulated and strong transdisciplinary projects can bring about curricular integration, difficult as it may seem, with significant impacts in the learning process of the youth.

In order to establish a dialogue with other experiences, maybe we can seek some similarities between integrated Upper Secondary Education and a

model developed by other countries, such as France and Uruguay. In Uruguay, since 1996, the so-called "technological degree" has been developed as an alternative to technical school, with an institutional model that establishes more meaningful links between science, technology and technical knowledge. This model has emerged in order to overcome the excessive specialization of technical education, and the fact that technical schools were aimed at the poor.

Is it necessary to change secondary education?

In the debate, questions were raised regarding the possibility of proposing to the whole of Upper Secondary Education offer a similar approach to the integrated model and of defining to what extent this focus would compete with the other formats. It was highlighted that a new proposal is neither opposed to the others, nor is it exclusive or universal, but an option.

Maybe one of the problems for outsiders to understand the Brazilian proposal is due to the difficulty in positioning integrated Upper Secondary Education in the overall provision, as it is proposed as a format of training for work.

What does it mean to prepare for work at secondary education?

What must be the preparation for work at Upper Secondary Education level? This question has been thoroughly discussed here from different points of view, and is also present in the agenda of other Latin American countries.

There is a strong non-conformity about the dichotomous organization of educational systems and teaching, that distinguishes between theoretical and practical contents, knowledge and skills – which, in reality, are integrated, as was highlighted in the discussions. Added to that, we notice a strong sense of disappointment with the scant results of such optimistic reforms, as the ones that took place in the 1990s in Latin America.

What type of integration is proposed, and how to achieve it?

The preparation for work, either in its more general or its more specific provisions, faces several institutional and curricular difficulties for becoming effective in the school – among them, the structure of subjects in the curricula.

One of the most frequent ways of facing the problem of curricular integration is to contextualize certain contents of Upper Secondary Education in the competencies of the licensing courses, as was shown by the case study and explanation on the work that has been undertaken in the state of Maranhão.

Can classes be overcome or not?

The possibility of overcoming the division into classes in the curricular organization was the stage of a tough debate, with opposing proposals and, perhaps, one single point of consensus: the difficulty of doing it.

On the one hand, there are those who maintain the impossibility of structuring the curriculum without a class-based schedule – something that they do not consider as a problem, as they see the integration of knowledge as the work of individuals. It is up to the school to allow this integration through transdisciplinary projects, in a mixed system that appreciates the classes system at the same time as integration. It was also argued that Teacher Education is disciplinary.

In the opposite field, we find those who state that the fragmented model of science is being overcome, and that such fragmented view has led to the undesirable situation in which we now find ourselves. These observers defend that a competence-based focus may represent a form of integration and of overcoming such fragmentation.

I see that the Latin American experiences of curricular organization by areas, in order to overcome the class-based model, have been very difficult. The initiatives of Mexico, Chile and Argentina seem to have faced as many difficulties as the ones that I have heard about in Brazil.

Can a competency focus become the form of integration?

It is important to highlight the various ideas that involve the concept of competency. For some, competency concerns a specific practical and

instrumental knowledge. For others, it is connected to the capacity of putting into action a set of more complex knowledge contents.

Based on those different concepts, in the countries that we have studied, there have been sectors more directly connected to work and Vocational Training that proposed different ways of acquiring competencies. Those proposals can be summarized in two wider lines of reasoning:

Contextualizing certain contents of General Education (Upper Secondary Education) in the specific competencies of professional licensing; developing transdisciplinary projects with a social relevance that integrate training, investigation and extension.

Which are the youth's motivations and strategies?

Another theme that was brought about – even though I personally believe that the discussion still needs to advance more – regarded the motivations and strategies of youth. The many questions that were asked can be grouped into the following topics:

- Who are the young individuals who turn to the many forms of Upper Secondary Education? What role does a vocation play in this path?
- Which criteria are used by youth in order to select one path among the possible paths? And which are the criteria used by institutions to select students? I notice that these processes of self-selection and institutional selection are always very rich in analyzing assumptions, criteria and subjects of learning that are implicit in the range of choices.
- Which paths do the young individuals take? Do they plan their paths with the support of institutional bridges that are properly anticipated, or without this support? Are there expected bridges between the different forms or modalities of education? Which are the implicit criteria for such crossing-over? It is important to highlight that a crossover between different systems of lifelong learning is one of the issues that are currently at the center of the debate.

What is the relationship between the young individual, work and school?

Another aspect addressed was the relationship of the young individual with the school and work, and the development of his or her subjectivity as an actor of Upper Secondary Education. Regarding this theme, different questions have been brought up:

- What is the relationship of the young individual with work? Is work only conditioned by his or her economic and social situation, or is it a strategy so that one can study? To which extent is study a means or an end in itself?
- How does the school see the relationship of the young student with work? Does it incorporate this situation it its curriculum design in any way, either from the standpoint of the organization or appreciation of the student's role? A working student is different from the student that schools often take into consideration.
- How do young students equate school life and work life? Here, we have a striking theme: we often emphasize the need to grant a voice to youth, so that they may express what they want from the school. But the young do not always want what we believe is the best for them, from the standpoint of equality. This is a permanent problem at schools, which is clearly manifested through dropout rates: curricula that decide what is best for the students are not necessarily what the students can or want to do; and so they drop out of school and all this leads up to the even worse problem of negative schooling.
- Does a young person abandon the studies when he or she obtains a professional license? What does he or she want and can have, amidst the social and economic conditions and restrictions? A disquieting question was raised in the debate: when a young individual chooses to shorten his or her education path, is that good for them?

The tensions between the demands of youth and equality goals bring back the question of what the scope for possible alternatives is, and of how much the school can do by itself. This question was debated in two moments: we asked, with a measure of realism, what can be done in the current situation; and what can be done on the mid-term, as realities change. There is, therefore, a double dimension and a permanent tension between what is ethically and politically desirable, and what is possible. Those tensions are a good example of how the questions that emerge from inequality are present in each decision of the institutional and curriculum model of the school.

Funding and Programs

The funding of Secondary and Vocational Education has been frequently debated in Latin America, thereby addressing the fragmentation of the resources and policies – above all in capacity building programs for young individuals who are out of school. About this theme, there is underlying tension in all countries: even though there is a critical view of the program-based strategy, successive governments keep working with this model, whatever their political guidelines. It is a deeply rooted management format. As it seems, the programs follow a mandate format, with a pre-determined beginning and end.

Here, there was also mention of the fragmentation and overlapping of many policies – education, qualification and youth – developed within and across several ministries (Education, Labour, Science and Technology, Youth and so on). Furthermore, the integration efforts, which are still insufficient, were also mentioned. The need to formulate strategies in order to integrate the resources that are scattered throughout the various programs was pointed out.

But there is another question, which to me seems even more interesting: how to assign the sequencing of the resources? In other words, what is necessary now, what can remain for the future, and how to predict the continuity – which involves the relationship between investment and upkeep. Furthermore: the problem does not restrict itself to integrating resources; it also encompasses the types of provision and the institutions. How to establish institutional policies and permanent policies? Some of the points in discussion were:

- Expanding the available resources beyond 4,3% of the GDP;
- Discussing the programs as a political option of the states, and not only as a mere search for resources;
- Including inter-sectorial discussions on which Upper Secondary Education must be related to the system of Vocational Education – a part of it is linked to the Ministry of Labour.

Teacher Training and Capacity Building

Regarding the teachers, a question was raised here that is also quite present in Chile and Argentina: the need to train workers in Pedagogy, and the need for inservice training. This is an excellent theme, as it points out to work as an educational principle in Teacher Education.

How many Teacher Education programs are there, which challenge work from the standpoint of the teacher's own work? How much potential is there for educating teachers in the relationship with work based on a reflection about one's own work? In spite of the huge richness and political and social value of a teacher's work, it is also very undervalued and lacks prestige in our societies – this is quite a paradox.

In regard to capacity building for teachers, it was pointed out that a more formal type of training has not arrived in the classroom in the same manner as in other countries. Which are, then, the methodologies needed in order to transform the classroom? It was mentioned that capacity building at the workplace is important, as well as inservice education by the school, and a guided collective equivalence system; it is necessary to think about training in terms of a school collectivity, and not in individual terms.

This question is also widely debated in other countries, especially in the field of Vocational Training. There are experts who defend that in recent years, in Latin America, the most useful pedagogical innovations were not produced by formal education, but, instead, by Vocational Training. This is a polemic position, but it does make us think, especially when one considers what has been said at this workshop on the value of the product – in other words, of work – in the learning process.

Mediations on Institutionality, Cognition and Value

Finally, I would like to introduce the truly complex mediations of the relationship between the Federal Government, the State governments and the school: how are they conducted? Which are the roles of each actor? What is the relative force of each one?

We often suppose that a program's design is precisely what the program ought to be. From a more epistemological standpoint, this can never be the case. What happens can never be what is in the documents, because there is a social construction at work. The observation of this social construction is what shows us what can be done, and what the program is in reality.

I believe that it is necessary to consider the dimensions of value, cognition and technical aspects of all actors from the national level all the way through the intermediate levels, for the schools. All those things change; and one cannot expect that they will not change. We have analyzed many

programs in countries such as Chile and Argentina, and the different ways in which the comings and goings take place among the different levels. We are not used to seeing those transformations in a positive light, but they always happen, even in programs that are seen as the ones that work best.

The School and the World of Labour

Must the school provide training for the world of labour or for local development? At heart, I believe that the question should be: must the school prepare the young student so that he or she can be integrated to this world of labour, or in order to change it? There have also been some arguments claiming that, somehow, the school always reproduces the world, and that such integration is a fact. The tension between integrating oneself to what already exists or changing things is always present. I ask: are those options necessarily opposed to each other? Because they are always taking place together.

It is necessary to ask: what is the world of labour? Here, some aspects have been debated, such as the different actors. Even though the companies have more weight in relation to what they request as Vocational Training, there are other stakeholders, along with the public places and social economy. These work spaces are much more diversified than the big companies, which, in the last instance, are not the biggest employers in other countries. In those countries, with given variations, the informal sector is the one that employs the most.

Even though we may agree in general terms, the local contextualization proposes many reflections, above all when we talk about government policies: to think about a project is different from the thought of providing a general service. To think about providing a general service is much more complex. What is "local"? The concept has many dimensions, because we are talking about a reality that ranges from rural communities to big cities. What is "local" in a big city? In this case, it is much more complicated to formulate the relationship among the actors.

Another question: what to do when there are no local development policies? Or as we have seen here in the debate, what to do when the local development policies change? In many of the cases we have analyzed, we saw a certain voluntarism. In Argentina, for instance, as there was a strong tendency towards a municipal axis, it was considered as a good idea to count

with technicians in local development. Nobody knows what those technicians do, but they are able to insert themselves in the job market; the municipalities have not pursued any important action to insert those technicians in local development.

The discussion about local development is complex and replaces the question of opportunities for youth. When one deals with alternatives in order to provide better opportunities of insertion, including all young people is unlikely.

Another constant tension stems from the needs of the young people living in slums and settlement areas; once again, the demands on the school are often quite excessive, and it is a central feature of the educational policy to say what the school can and cannot do. Here, we bring back the debate about what is possible in the eyes of teachers and school teams – who must frequently steer themselves towards what can be done.

How does one arrive at the decision about the provision profile, i.e. of what will be taught? Interesting aspects have been raised on the importance that all local actors have in this definition: due to a question of pertinence and ownership, the school alone cannot make this decision. Nonetheless, pertinence and ownership are unstable and it is very complicated to project a direction towards the future.

The School and the Local Networks

The insertion of the school into local networks is interesting and necessary, but it is not simple. We conducted a few studies in Antofagasta (Chile), Campana (Argentina) and Medellín (Colombia), and we concluded that this is one of the most challenging fields for the school – either in relation to local development, or as a preparation or qualification for work, or else in terms of contextualization.

From the standpoint of the school directors, insertion in local networks is often taken as an additional task. It can be said that technical schools are more used to this role, and that, on their turn, General Education schools are less used to it. Such relationship with local networks is considered an overload of tasks when the times, spaces and roles at the school are not redefined. Our studies show that when there are initiatives by other actors of the community (or by NGOs that boost this type of action), to which the

school can be added, things are always easier. But it is very difficult when the school must play the role of an articulation axis.

* * *

This is the scenario of challenges before which UNESCO has worked not only in Brazil, but also in many other countries that face quite similar problems, as we shall see in the presentation of our colleague Claudia Jacinto, coordinator of redEtis/IIPE.

Specifically in regard to Brazil, the UNESCO office has been active since 1997 on the areas of Upper Secondary and Vocational Education, and has collaborated with the Federal Government and the state governments in the development of policies and management tools. Those activities have been characterized by actions aimed at the production and dissemination of knowledge, as well as professional enhancement of policy managers.

In this context, for a long time we have been concerned with the difficulties faced by managers and school professionals to secure quality education that guarantees young students the obtainment of basic knowledge so that they can live in society and develop their citizenship. With Decree 5154/2004, which has institutionalized the modality of Upper Secondary Education integrated to Vocational Education, the state public schools started to live with a new and more complex challenge. As we know, and as the studies show, the teaching systems are still looking for paths in order to secure the fulfillment of the functions defined by the LDB for Upper Secondary Education, as well as those established by the National Curriculum Guidelines for this teaching level.

At the same time, it is also known that a good part of the state provision of Vocational Education is not backed by a well-structured policy with the necessary conditions for securing a high level of quality in the Vocational Training of its students.

This context brought to UNESCO a concern with the dimension of the challenges that the State Secretariats of Education face in order to implement and provide Upper Secondary Education integrated to Vocational Education – a policy that has been stimulated and that has received technical and financial support by the Ministry of Education.

Thus, in 2005, UNESCO started a study on the Brazilian policy of Integrated Upper Secondary Education involving two case studies, which will be the theme of the debate that takes place tomorrow.

I would like to highlight here a fundamental element of this experience: to our surprise, in spite of the existence of a group of students enrolled in Upper Secondary Education Integrated to Vocational Education in public schools of different federative units, only two State Secretariats of Education had better structured curricular guidelines.

Today, we are gathered here in this workshop, which has the goal of taking the analysis and the debate on the challenges of Upper Secondary Education further, and also to reflect about points of consensus and divergence, concerns and alternatives for structuring a policy of Upper Secondary Education Integrated to Vocational Education. The decision to organize this workshop was made in order to fulfill the intention of propitiating a space for presenting, discussing and disseminating the knowledge produced by the study, while enabling a dialogue with different actors of Upper Secondary Education and Vocational Education, seeking to expand the contributions from a diversity of views by each one of us present here.

The results of this discussion will be issued as a publication on the policy of Upper Secondary Education Integrated with Vocational Education, in order to contribute to the managers in the attainment of the goals of quality education and social inclusion for our youth and adults.

Therefore, I thank you once again for your availability, and for accepting UNESCO's invitation to take part in this discussion and to collaborate with it.

Youth, Labour and Education: an Interpretative Review of the Symposium

Jarbas Novelino Barato[65]

This text seeks to show the trends that have emerged from discussions that took place during the symposium Secondary Education: Challenges, Opportunities and Alternatives, in September 2008 in Brasilia. The debates were organized around the study undertaken by UNESCO about experiences of integrated Upper Secondary Education. The analysts' contributions in the abovementioned study and the interventions by event participants resulted in a framework that locates those experiences in quite a wide context of relations that are established nowadays in the country regarding education and labour for individuals between 15 and 24 years old. In this sense, the final result of the symposium is not limited to taking stock of the experiences of integrated Upper Secondary Education. The event ended up converting itself into a forum that has gathered important contributions for thinking and re-planning Upper Secondary Education in the country.

The purpose here is not to present a synthesis of what was communicated and discussed at the event. In a certain way, such task has already been undertaken at the symposium in a session coordinated by Claudia Jacinto. The aim of this text is different. It seeks to highlight certain directions that suggest new horizons for the final years of Basic Education. The initial object of analysis – integrated Upper Secondary Education – is not forgotten; but it is framed within a backdrop that portrays Upper Secondary Education as a whole. Such backdrop is further expanded as the relations between education and work are newly signified based on the demographic dynamics of the present and the near future.

65. Scholar and consultant in the field of vocational education.

The workshop was organized to promote studies and debates on integrated Upper Secondary Education, starting from the work undertaken by a UNESCO consultant in Brazil, and has encompassed many more themes than expected for the analysis of alternatives in the organization of the teaching modality. The contributions of all participants resulted in a very rich depiction of the situation of Brazilian youth in their relationships with work and education. Such depiction does not always reveal consonant views. The opinions and positions of the participants expressed a diversity of views on the approached questions. Nonetheless, the interventions presented some common directions that suggest the need for entirely rethinking Upper Secondary Education in Brazil. The present text seeks to show some of those common directions by highlighting ideas that may suggest a new treatment for Upper Secondary Education in the country.

Until quite recently, Upper Secondary Education was a possibility only for a few. The educational aspirations of the poor were basically limited to the former *ginásio* (fifth to eighth grade of primary education). With the 1996 Act of Guidelines and Bases of National Education, the dream of completing the *ginásio* was converted into a right, established by the mandatory status of an eight-year primary education cycle. The same act, as was noted by the participants of the symposium, suggests the universal provision of Upper Secondary Education, but the commitment was not totally clear as expressed by the legal framework. In any case, the possibility of providing Upper Secondary Education for all is already quite near. It seems that Brazil will soon level up with its MERCOSUR partners, and that most of the youth population of the country will achieve 11 or 12 years of schooling. The materialization of this goal is important for two reasons: 1) in the evolution of the right to education, that is, going as far as at least Secondary Level is becoming something desirable and plausible; 2) joining occupations of modern sectors of the economy is something that has increasingly demanded higher levels of schooling.

The opening of the event, by Carlos Artexes, sets up a general and necessary frame for positing the proposal of integrated Upper Secondary Education. In her observations on secondary Vocational Education in Latin America, Claudia Jacinto notes that the Brazilian proposal is a novelty. In general, the notion of integration is absent from many technical education alternatives of Latin American countries. In a certain way, the provision of

Vocational and Technological Education at the Secondary Level reflects the old dualism that separates General Education from specific capacity building programs. Such characterization also applies to Brazil. For this reason, before highlighting the central axes of the presentations and debates of the symposium, it is convenient to recall the descriptions of how Vocational Education has evolved in Brazil. The references to those descriptions have been both tacitly or explicitly present in many of the interventions of the participants.

Vocational Education in Brazil

The discussion on Vocational Education has substantially increased in recent years. There has also been an increase in the efforts of the Federal Government and State governments towards providing more opportunities so that youth can count on alternatives of vocational Upper Secondary Education. All this activity around capacity building for work in the last stage of Basic Education does not mean a return to the previous model of technical and Vocational Education at Upper Secondary Level. Ideas and achievements in the field of Vocational Education indicate that the articulations between school training and productive activities started to gain contours that are quite different from the previous solutions.

It is a consensus that, historically, Vocational Education in Brazil emerged as an activity that was not integrated to the conventional educational system. The first initiatives of Vocational Training in the country were structured as welfare services for unfortunate orphans. Even when capacity building for work started to be seen as a convenience to prepare workers for certain productive activities in the Lyceum-Schools of Arts and Crafts, and Schools of Craftsmen-Apprentices, such welfarist character was still predominant. The students educated at the institutions of Vocational Training had the practice of a profession as their single possibility. Education was seen as something entirely different from school education. This situation started to change only in the 1940s, but the separation between General Education and Vocational Education still lasts up to our days.

The organization models of Vocational Training had as references the educational practices that were characteristic of the environments of the craft guilds. The ideal learning environment was the workplace itself, and

not the classroom. A classic study on the issue (MJELDE, 1987) shows that Vocational Education in its origins was completely distant from the school models influenced by elite literary traditions. Such separation between education for work and "literary" education took place in Brazilian history. And in a certain way, it still remains almost intact in the basic Vocational Training of the workers. In the case of the training of technicians, the focuses influenced by the traditions of the craft guilds have been complemented by General Education contents. And as the curricula of preparation for work at Upper Secondary Level were structured, the double origin of Upper Secondary Level technical and Vocational Education became evident. The solutions found were almost always those of juxtaposing the two traditions. This was (and still is) a very present feature in the teaching profession. In most cases, there was (and still is) a predominance of a clear separation between the teachers from the two sources, with a certain depreciation of the teachers responsible for learning at the workplaces.

The study of the UNESCO consultant about experiences of integrated Upper Secondary Education found that there is a different treatment for teachers of one and the other tradition. Teachers in the area of General Education have well-defined careers and work contracts. Teachers of specific contents, as a rule, do not have a well-defined career, have a lower remuneration than their General Education peers, and often have temporary work contracts. The finding shows a certain estrangement in the education systems regarding their treatment of "workplace teachers". The origin of the knowledge that converts itself into work performance reflects social practices in work communities. Such circumstance is quite different from the didactical solutions based on the "literary" tradition. Thus, the teachers of specific contents are not the only ones who face problems in order to make integrative projects effective. It seems that the comprehension of the knowledge directly linked to the production of work is another source of difficulty in the integration process. There is the risk of mistaking integration for a subordination of work knowledge to literary knowledge.

Vocational Education and Upper Secondary Level Education, discussed in proposals of articulation and integration in formative environments that can give a new meaning to Upper Secondary Education, are themes that need to establish relations with other dimensions, above all with work and with the situation of the young individuals who need to study in integration

with productive activities. There have been associations among all these themes in the statements of the participants of the event. Based on such associations, it is possible to indicate the main axes of the discussions.

Axes of the Debates

Most communications and interventions were aimed at a given specific theme, almost always with the intention of locating the proposal of integrated Upper Secondary Education; yet, when one considers all contributions as a whole, a framework begins to emerge with indications of deep changes in Upper Secondary Education, in the relations between education and work, and in the situation of the 15 to 24 year-old age group. In a first approach, the abovementioned indications can be grouped into the three briefly described axes as follows:

1. Upper Secondary Education

There is a clear trend towards the universalization of Upper Secondary Education in Brazil. The number of students in this teaching level is not yet satisfactory, but an increase in enrollment figures in the recent years shows that a significant part of the population will soon round up 11 or 12 years of schooling. Yet, the universalization of Upper Secondary Education is not just a statistical phenomenon. Upper Secondary Education has been offered to most, and has changed its nature. It is no longer an educational provision for the elite. It is no longer a program of studies in order to prepare students for entering college. Upper Secondary Education is now a concrete part of Basic Education to which the entire population must have access.

The new nature of Upper Secondary Education is not yet well established. It is known that it can be defined by denying the role that Upper Secondary Education has played while it was an educational offer for the children of the elite. The new goals are still a topic for debate. In a certain way, the educational practices of Upper Secondary Education are still based on the former references that characterized Upper Secondary Education in the country. The proposal of integrated Upper Secondary Education is an attempted response that points towards a new type of Upper Secondary Education. It is presented only as an alternative, and not as a solution that will produce a different and adequate profile for the entire scope of Upper

Secondary Education. The quantitative advancement of the provision seems to indicate the need for clearly characterizing expectations regarding a complete Basic Education (12 years of schooling). There is the demand for definitions that can establish the results to be reached in terms of the appropriation of scientific, cultural and technological contents by a well-educated citizen, along with an array of competencies that may facilitate one's participation in productive activities through work.

2. Education and Work

There are two dimensions in the debates on education and work. On the one hand, work as a social practice must be one of the structural axes of education. The idea of education as something distant from work reinforces prejudices and impoverishes the training of the students. On the other hand, education is an activity whose results visibly reflect on the capacities of the workers. Both dimensions permeated the discussions at the event.

Work as a structural axis of education is not only an orientation for Upper Secondary Education. The importance of work in human history marks the need for considering it in all educational levels. There was a consensus in this sense, but the forms of implementation, as well as the epistemological components of work remain as themes of debate.

One of the perceptions shared by all participants is that a General Education of quality, besides being an undeniable right for all, is one of the conditions for joining the productive activities with competence and dignity. Aspects related to the curricular and didactical dimensions, recognized as important, were presented with certain diverging colors in the group of interventions. The prevailing interpretation was that the specific contents of Vocational Training must be subordinated to a broader framework of Science and Technology. There were also suggestions that the process of learning things by doing them has an epistemological status of its own.

Another finding that has emerged in different ways during the event was that the school can be a dynamic pole of technological development, and such circumstance suggests that preparation for work is not necessarily subordinated to the formal demands of the job market. The school can play a role of inducing changes in the socioeconomic dimension. The relations between education received and quality of work conditions were also a recurrent theme during the event.

3. Situation of Youth

The age for completing Secondary Level studies should be around 17 to 18 years old. But the figures show that the age group to be considered is that between 15 and 24 years old. Many young individuals older than 18 are studying, but still have not reached Secondary Level. A significant number of students above 18 years old is enrolled in some type of Secondary Education program.

However, the complexity of the situation as presented is not limited to the gap between age and expected schooling level. From 15 to 24 years old, there is yet another set of problems in relation to work. Youth is still the group with the highest levels of unemployment. The situation is worrying for the poor, among whom the unemployment level reaches an approximate 30%. A large share of Secondary Level students are workers; but there is an expressive number of young individuals who neither study nor work. Government policies in several ministries are attempting to suggest paths in order to overcome these problems. They are still very modest, if we consider youth schooling and employment.

Local initiatives – especially those that plan Upper Secondary Education in articulation with the socioeconomic needs of a territory – have rehearsed alternatives capable of overcoming some of the difficulties found. This may be a promising path, but the dimensions of the problem seem to demand broader government policy. The current demographic dynamics present a challenge whose solution does not restrict itself to improving the education that is provided in Upper Secondary Education; study programs and the incorporation to the production activities are facing nowadays a very complex situation. Poverty, unemployment or degrading work conditions, along with difficulties for taking school classes and lack of interest in studying add to a scenario requiring interventions that cannot be restricted only to the arena of conventional education.

The indications presented here refer to three landmarks capable of aggregating the most expressive contributions to the symposium. They suggest quite interesting paths for future discussions not only on integrated Upper Secondary Education, but also on the relations between education and work for the youth in Brazil.

The three discussion axes outlined here are retaken in the following items, highlighting contributions of the symposium participants and showing the

diversity of points of view, when it is the case. In order to better locate the themes discussed, there is a certain degree of interpretation in regard to the ideas that were presented and discussed during the event. This decision was made so that the report presented here will not be restricted to a summary.

Secondary Education

The interventions of the participants indicated that Upper Secondary Education is a constituent part of the education to which every citizen is entitled. The statistical data presented by Carlos Artexes showed that this right has not yet been fully attained, but that the country has significantly advanced towards such a goal in recent years. Yet, it is not enough to offer Upper Secondary Education for all. The democratization of Upper Secondary Education will certainly result in a new quality of education. Upper Secondary Education for all does not mean only to secure access by all social segments to an education that, so far, had been available only for the elite. Universalization points to challenges in terms of contents and of the aim of Upper Secondary Education. In other words, the nature of this level of education in a democratic and universal provision cannot be the same as the one that was offered to the elites.

For many years, Upper Secondary Education in Brazil has been a bridge between primary school and the university. It was defined therefore based on selective demands of the higher level courses. With the measures of equivalence between conventional Upper Secondary Education and the technical courses, which began in 1940s and were converted into an act in the 1960s, Upper Secondary Education started to incorporate capacity building for work in quite specific programs. In general, the technical courses ended up including General Education studies with restrictions in relation to the hour load and depth. The General Education contents were often developed with instrumental concerns, oriented more to use in work situations than to the development of contents that would demand a science and technology basis from the student. In one of her interventions during the symposium, Regina Cabral observed that Mathematics during the Pedagogical Secondary Course considered contents that future teachers should pass on to students from the first to the fourth grade of primary education. Due to this instrumentalist bias, the students of the pedagogical

secondary course did not have the opportunity to learn Mathematics in levels that could help them incorporate broader and more comprehensive contents. Such circumstance shows that the equivalence rule secured the right to the continuity of the studies, but did not include contents that could guarantee access to scientific and cultural contents of the conventional Upper Secondary Education by the students who were taking the vocational courses.

The vocational courses and the conventional courses at Upper Secondary Level have practically the same duration. Along with specific contents, the former develop General Education subjects of conventional Upper Secondary Education. This circumstance means a very restricted time for learning the scientific and cultural contents. The proposal of integrated Upper Secondary Education seeks to solve the problem by demanding a full-time load for both curricular dimensions. This results in an Upper Secondary Education with a much extended hour load. An excessive increase in the hour load of technical courses is a controversial question. Too high a load can create difficulties for students who already work or who must urgently join the job market. Some participants of the symposium, such as Gabriel Grabowski and Carlos Artexes, defended the need for an integrated Upper Secondary Education with an hour load that fully considers the minimum loads established for General Education and specific contents. To this end, they presented the reasoning that a reduction in the hour load entails less opportunities to further studies in the fields of science and culture. The problem here is not restricted to an engineering of the hour load. The issue is ultimately that Upper Secondary Education, with or without the inclusion of specific contents for training technicians, needs to secure the same training for all of its students.

The historical view of Upper Secondary Education in Brazil presents a duality that set aside quality General Education for children of the elite who aspired to complete Higher Education, and a vocationally-oriented teaching for students who needed to join the productive sector as early as possible. It seems that this question is now well understood by the educators, and there is already an attempt to redesign Upper Secondary Education with other characteristics. But the path is still difficult. The UNESCO study highlights the finding that the curricula of some integrated Upper Secondary Education courses present a very large number of subjects. And the question is not only

quantitative. Apparently, the subjects have no connection among themselves. It is appropriate to ask if knowledge must be so divided at an educational level in which subject cuts for training researchers are unnecessary. The question is also valid for study programs that consider only General Education. Even though the suggestion has not explicitly appeared in the symposium, several interventions on curricular questions pointed to the need for revising the curriculum treatment to be given to Upper Secondary Education

The principles of democratization and universal access to scientific and cultural heritage historically constructed by mankind must rule new curriculum approaches. It is important to mention an observation by Carlos Artexes on the integration of contents. Integration does not take place through manipulations in the way knowledge is presented; instead, it takes place in the process of incorporation of contents by the apprentice. This observation is a warning to avoid the misconception by educators that the integration of subjects takes place externally to the processes through which the students develop their knowledge during school education.

The curricular questions gain a special significance in the case of integrated Upper Secondary Education. The proposal seeks to reach a synthesis among the contents of General Education and the knowledge linked to the specific contents of the intended professional license. In some interventions of the participants, the solution in development was to subordinate technical knowledge to scientific knowledge. This seems to be a solution whose basic assumption is the understanding that declarative knowledge – *knowing what*, as pointed out by Gilbert Ryle (1984) – explains and includes the knowledge of the process – *knowing how*, as defined by the classic suggestion by the same author. There is a predominance of the suggestions that the development of knowledge born at the workplaces – the type of knowledge that is developed at work communities – must be subordinated to the knowledge of academia and laboratories. If such understanding is the current one, then the possibilities of integration are still far from materializing.

In the study undertaken by the UNESCO consultant, it was found that in the observed experiences there has been only a juxtaposition of mandatory subjects of the two traditions that should have been articulated into a unified proposal. Eventually, some interdisciplinary articulation ended up taking place at the visited schools, due to isolated initiatives by some teachers. But those events did not originate from concepts of curriculum integration.

In another case of experimentation of integrated Upper Secondary Education – the CEMPs in Maranhão – there was the description of an effort of articulation between the subjects of General Education and the subjects of specific contents. In this experience developed at the region of Baixada Maranhense, General Education and Vocational Education are different nuclei. There is not an integration properly speaking in the experience of the CEMPs; yet, such integration is a desired goal. So far, as was already mentioned, the results that have been reached are described as an articulation of contents. In his considerations on curricula and the experiences analyzed by the UNESCO study, José Antônio Küller highlighted that the convictions of an education aimed at technical specialization lose their meaning at a time when work is emptied out in terms of contents. On the other hand, Küller observed that the current productive demands call for professionals with good basic competencies. According to Claudia Jacinto's observation, this trend has predominated in many countries of the continent; but in recent years, several national plans in the field of Vocational Education have once again emphasized contents that are linked to particular special fields. Those fluctuations in the understanding of what to propose in terms of curriculum, either regarding General Education or Vocational Education, reflect perhaps the diversity of demands as to possible results of Upper Secondary Education. Among the participants of the symposium, there was a consensus that Upper Secondary Education must promote a curriculum capable of securing access to scientific and cultural contents that are significant for the exercise of citizenship. Such consensus seems to indicate that the results of Upper Secondary Education, in educational terms, must secure equality of opportunities for all, but the social demands in terms of knowledge and the concrete living conditions of the students suggest different types of treatment. And such differences are pointed out as democratic solutions.

A general summary of the discussions about the curriculum during the event shows that the theme is subject to contradictions that need to be understood and overcome. In spite of the fact that the perspectives of Upper Secondary Education are no longer those of preparatory studies for entering a university, it cannot be denied that a share of youth go through Upper Secondary Education with an eye on continuity of education at the higher level. In spite of integration efforts or of the articulation between General

Education and Vocational Education, the origins of each one of the educational traditions at stake in technical courses have distinctions that can emerge in the training and practice of the teachers, and in the learning focuses and expectations of the students.

In the legal and doctrinal spheres, as observed by Amin Aur in his report on the experiences of integrated secondary learning, there is an excessive number of norms and guidelines that frequently does not reach the daily lives of the schools. In real life, schools, educators and students are concerned with the immediate horizons in terms of employment and work. Proposals of curricular organization for Upper Secondary Education, either in the field of General Education, or in the field of Vocational Education, are a challenge that requires new debates and more experimentations, followed by records and studies, guided by the principle that Upper Secondary Education and access to the world of labour through capacity building are necessary conditions for social insertion.

Education and Work

Upper Secondary Education is directly linked to work. Many students are already workers and wish to understand in some way how their professional activities are linked to their studies. In any of its alternatives, Upper Secondary Education works as an instance of preparation for work. In modern sectors and even in traditional sectors of the economy, complete Upper Secondary Education has been requested as a prerequisite for joining any professional activity. There is no necessary congruence between the contents learned in Upper Secondary Education and the contents demanded for work. As a rule, there is a demand for a type of schooling that culturally prepares people for the nature of work in our days.

These comments yield an understanding with an instrumentalist character. This is perhaps not the prevailing dimension to be considered, but its relevance can be grasped through the difficulties that many young individuals have in joining the formal job market. The unemployment figures among youth include many individuals with complete Upper Secondary Education. Two reasons explain the phenomenon: insufficient generation of new work posts and poor quality of the education received. The educational system cannot solve the first problem, but is responsible for the second. We are

successfully offering Upper Secondary Education to most young people, but it seems that for a share of our youth, completing secondary studies does not result in an array of competencies able to guarantee that one will be accepted by the job market. According to José Antônio Küller, projects of complementation of studies for youth living in urban peripheries of metropolitan regions show that the education received at the Secondary Level is of doubtful quality. The point made by Carlos Artexes on a new dualism (high quality schools versus low quality public schools) points to the same direction. In spite of disagreements regarding how to consider a dimension of work in the conventional Upper Secondary Education, the symposium participants agreed that Upper Secondary Education is instrumentally valid for work.

Several interventions highlighted the importance of work as a structural axis of education at all levels (e.g. the interventions by Dante Moura, Gabriel Grabowski, Amin Aur, José Antônio Küller, Sandra Garcia, Claudia Jacinto and Irailton Lima). The nature of work as an element that produces life in society and the identity of people cannot be ignored in the educational processes. In order to result in educational practices, such orientation depends on an understanding of the epistemological and axiological dimensions of work-related knowledge. It may shed light on methodological questions and on forms of organizing learning environments. It can be decisive for overcoming prejudices in relation to manual labour. In the latter case, it is appropriate to observe that the depreciation of work can become an attitude by students of the poorer segments of the population who dream of escaping a fate as workers through their studies. An investigation by Wresh (1996) shows such tendency in Namibia, a country where Vocational and Technological Education was mainly chosen by the children of the richest classes. On the other hand, the proposals of some educators that vocational and technological training can be a social insertion mechanism must be well evaluated, in order to avoid the idea that Vocational Education is a program for "other people's" children.

At the symposium, as was previously mentioned, there were positions on education and work that must still be further debated. The understanding that mastery of techniques is a type of knowledge and is subordinated to scientific comprehension leads to a hierarchic scale of human knowledge. The hierarchy that results from such an interpretation of knowledge is

something that depreciates the capacity to do things. One of the consequences of this is the inability of educators to understand contents that are developed at and through work. Such contents, as well as the individuals who master them, are invisible. This invisibility ends up producing didactical-pedagogical proposals that ignore the epistemological dimensions of technical knowledge. Conceptualizations that do not consider contradictions between academic knowledge and work-related knowledge can become one of the obstacles for the development of integrated teaching proposals. Achieving syntheses able to overcome the asymmetry between the two educational traditions that meet in the vocational courses is the challenge of integrated Upper Secondary Education.

Traditionally, the provision of technical courses is driven by the demands of the job market. According to the participants of the symposium, this mechanistic association between education and productive activities must no longer guide decisions on Upper Secondary Education in general and integrated Upper Secondary Education. There was no denial of the importance of a certain alignment between the job market and education. The proposals of the participants moved towards a relative autonomy of the educational systems for proposals of study that consider work in its productive dimensions.

A proposal that deserves consideration was that the schools may have a role at inducing changes in local or territorial development. To this end, their courses can be planned in order to train technicians capable of introducing new technologies into activities that favor a self-sustained development. This orientation can be verified at the CEMPs in the state of Maranhão. In a certain way, the same orientation seems to exist in some of the schools visited by the UNESCO consultant. Communities identified with economic exploitation of forests through self-sustained extractivism activities propose, according to Irailton Lima, a model of Upper Secondary Education able to keep young individuals in their communities. The idea that integrated Upper Secondary Education should have a local orientation also emerged in the accounts of the Secretariat of Education of the state of Paraná.

The proposal considered here deserves further incentive and study. It seems that the perspective of "training for the market" must be substituted by the perspective of schools able to operate as actors of self-sustainable development.

The Situation of Youth

Considering the age criterion in terms of education and work, there are two age groups that awaken our interest: one of them ranges from 15 to 17 years old, and another from 18 to 24. The first takes as a reference a period in which the students would ideally be taking lessons at the Upper Secondary Education level. The second group takes as a reference a period in which the students would ideally be in Higher Education. In both of them, there is an explicit idea that the ages of 17 and 24 years old are taken as limits for entering productive activities that are compatible with the education received. This mode of thinking about the articulation between education and work ends up becoming a decisive element for youth.

The level of schooling and the occupation of youth are quite distant from the ideal references. Of the population between 15 and 17 years old, only 48% are at the Secondary Level. This does not mean that most young individuals of this age group are out of school. In truth, the percentage of schooling for this age group reaches around 80%. In other words, there is an expressive number of young individuals who are still at the primary level of education, a phenomenon that characterizes an educational gap caused by school failure and dropout for some time. This image is complemented by the fact that an estimated 14% of the Secondary Level students are between 18 and 24 years old. The causes of such distribution of youth throughout primary and Upper Secondary Education are poverty, unemployment and weak school performance. The solutions range from financial incentives for students of the poorest segments of the population to the creation of work posts and quality improvements in teaching. Several ministries already have programs that address one or more of those alternatives, but the effectiveness rates are still very modest, considering the total young population of the country.

The description outlined in the previous paragraph is based on the data presented by Carlos Artexes at the opening of the event. He suggests the need for rethinking Upper Secondary Education in the country. This schooling level gains importance due to two reasons: one is the demand for joining occupations of the formal sector of the economy; it is a right, indicated by the consensus that a basic period of 11 or 12 years of schooling is indispensable for the proper exercise of citizenship. It is not only about expanding the benefit of Upper Secondary Education to the entire population with the adequate age. The effective democratization of Upper

Secondary Education poses new demands in terms of defining the nature of the education to be offered to all young persons.

The former Upper Secondary Education that was offered to the elites was almost always seen as a preparatory stage for entering the university, and is not a model that can be adopted in the present. From the standpoint of Basic Education as a right for all, the configuration of Upper Secondary Education must secure access to a common array of scientific, technological and cultural contents. From the standpoint of its relationship with the world of labour, Upper Secondary Education must secure capacity building so as to provide the young with the tools that will allow them to be active in reasonable occupations in the world of labour.

There is an expressive number of young individuals (14%) who begin attending Upper Secondary Education after the age of 18. This part of the population takes regular Upper Secondary Education courses in the night shift. Those are working students. The figures do not reveal how many of those students take Integrated Upper Secondary Education classes. But in all probability, this number is quite reduced. It is more likely that most of them are taking the conventional Upper Secondary Education classes. The situation of those young workers suggests further investments in the field of YAE. As Amin Aur observed in one of his interventions during the event, YAE must be seen as a structural solution, and not as a temporary and marginal activity in the system. Since an estimated 34% of youth aged 15 to 17 years old are still at the primary education level, there will be no decrease in the percentage of young individuals from 18 to 24 years old looking for Secondary Level education in a close future. An education that takes into consideration their condition as workers would probably be more effective than the mere offer of enrollments in conventional courses.

Access to education for Brazilian youth seems to face an obstacle that is not always considered in government policies. Such obstacle is the poverty of most of our young population. In the account presented at the opening of the event, Carlos Artexes reveals that 70% of Brazilian youth have a family per capita income below one minimum wage. The figure for the poorest segment of the population is even more worrisome: 40% of our youth have family per capita income below half a minimum wage. Along with the difficulty of access to education, it is likely that the poorest young individuals receive low quality education. This situation generates a vicious circle that closes itself, in the field of work, over the activities of the informal market.

Final Considerations

These notes on youth, work and education do not intend to synthesize all the contributions that were made during the symposium. They seek to show some of the points that deserve further study and experimentation in concrete teaching situations. A conscious choice was made to not consider doctrinal and legal aspects. Instead, the decision was to privilege the production within the event, taking into account the communications that were presented and, above all, the interventions of the participants. Along the text, there are references to several participants. Those highlights do not imply that the contributions of the individuals mentioned were more important than those of the participants not mentioned. The goal here was to highlight the trends that resulted in a collective production by the group, and not the individual authorship of each one of the participants. The intention of this text, as was already mentioned, is to highlight themes that deserve further consideration in future studies and in the planning of Secondary Teaching activities, and, more particularly, of Integrated Upper Secondary Education.

* * *

It is convenient to reiterate here some of the above-mentioned highlights.

- Work is a structural axis of education. This was a consensus position at the event. It has important reflections on the training of the educators and on the development of school curricula throughout the entirety of Basic Education. The modes of implementing it are still a challenge for educators.
- The examples presented at the event show the role of the schools as inducers of social changes. The subordination to the demands of the job market is not a measure that favors an education for autonomy. There is a need for more incentives to initiatives that convert vocational schools into regional hubs of innovation in the field of work.
- Work-related knowledge is an object of study that deserves a stronger spotlight on discussions about education, as well as on pre-service and inservice Teacher Education. The predominance of models that subordinate work-related knowledge to scientific knowledge is a trend that deserves to be revised. Invisible contents developed at and by work need to be more strongly reinforced in the educational environment.

- The training of educators for acting with integrated Upper Secondary Education needs to consider the knowledge of work as an indispensable and explicit content in curricular proposals, so that the desired integration can take place.
- The duality between General Education and Vocational Education has not disappeared. It needs to be overcome at the level of the school practices.
- The figures on the situation of Upper Secondary Education in the country indicate a new duality: high quality education for a few and low quality education for many.
- Integrated Upper Secondary Education is an interesting alternative not only as a proposal in the field of Vocational Education. Its existence and functioning are a laboratory of experiments on changes that are necessary for the entire Upper Secondary Education.
- The situation of poverty of the vast majority of young Brazilians demands an inclusive education.

The above list does not exhaust the universe of themes that emerged in the discussions of the symposium. But it is an indicator of the wealthy contributions of all the participants. It reveals points of consensus and dissension. It shows that the symposium around the study on integrated Upper Secondary Education promoted by UNESCO has fully attained its proposed objectives.

Bibliography

MJELDE, L. *From hand to mind*. In: LIVINGDTONE, D. W. (Org.). *Critical pedagogy and cultural power*. New York: Bergin & Gavey Publishers, 1987.

RYLE, G. *The concept of mind*. Chicago: The University of Chicago Press, 1984.

WRESCH, W. *Disconnected:* haves and have-nots in the information age. New Jersey: Rutgers University Press, 1996.

Annex
Workshop Participants

Bahij Amin Aur, Expert in Vocational Education and UNESCO Consultant.

Beronicy Paula de M. Farias, from the General Coordination of Upper Secondary Education, Directorship of Curricular Concepts and Guidelines for Basic Education, of the Secretariat of Basic Education of the Ministry of Education (SEB/MEC).

Carlos Artexes Simões, Director of the Directorship of Curricular Concepts and Guidelines for Basic Education, of the Secretariat of Basic Education of the Ministry of Education (SEB/MEC).

Claudia Jacinto, Coordinator of the Latin American Network of Education, Work and Social Insertion (redEtis), of UNESCO's International Institute of Educational Planning (IIEP), Argentina.

Dante Henrique Moura, representing Belchior de Oliveira Rocha, President of the Federal Institute of Education, Science and Technology of Rio Grande do Norte – IFECT/RN.

Francisco Aparecido Cordão, Member of the Chamber of Basic Education of the National Council of Education (CEB/CNE).

Gabriel Grabowski, Researcher in the fields of Government Policies, Education, Vocational Education; Expert in Funding.

Irailton Lima Souza, Director-President of the Dom Moacyr Grechi Institute of Development of Vocational Education, linked to the State Secretariat of Education of Acre (SEE-AC).

Janete Mércia da Silva Pereira, from the General Coordination of Upper Secondary Education, Directorship of Curricular Concepts and Guidelines for Basic Education, of the Secretariat of Basic Education of the Ministry of Education (SEB/MEC).

Jarbas Novelino Barato, Scholar and Consultant in the field of Vocational Education; Expert in Teacher Education.

José Antônio Küller, Director of *Germinal* Pedagogical Consultancy; Curricular Expert.

José Vitório Sacilotto, representing Almério Melquíades de Araújo, Coordinator of Secondary and Technical Education of the Paula Souza Center (CPS/SP).

Lorena de S. Carvalho, UNESCO Project Officer.

Maria Eveline Pinheiro Villar de Queiroz, Coordinator of Secondary Education, Directorship of Curricular Concepts and Guidelines for Basic Education, of the Secretariat of Basic Education of the Ministry of Education (SEB/MEC).

Maria Regina Martins Cabral, Administrative Coordinator of Institute *Formação,* a non-governmental organization responsible for the Centers of Upper Secondary Education and Vocational Education in Maranhão (CEMP-MA).

Marieta Oliveira Falcão, representing José Fernandes de Lima, State Secretary of Education and Sports of Sergipe (SEED-SE).

Mary Lane Hutner, Head of the Department of Basic Education, of the State Secretariat of Education of Paraná (SEED-PR).

Rachel de S. Pereira, of the General Coordination of Pre-service and Inservice Education of the Secretariat of Vocational and Technological Education of the Ministry of Education (SETEC/MEC).

Roberto da Cruz Melo, Director of Institutionalization for Vocational Education, of the Superintendence Office of Vocational Education, of the Secretariat of Education of Bahia (SEC-BA).

Romeu Augusto de Albuquerque Bezerra, of the Council of Directors of the Applied-Science Schools ["Colégios de Aplicação"] (CONDICAP).

Rosângela Marcos Félix, of the State Secretariat of Education of Santa Catarina (SED-SC).

Sandra Regina de Oliveira Garcia, Head of the Department of Education and Labour of the State Secretariat of Education of Paraná (SEED-PR).

Washington Carlos Ferreira Oliveira, Director of the Department of Basic Education, of the Superintendence Office of Development of Basic Education, of the Secretariat of Education of Bahia (SEC-BA).

United Nations
Educational, Scientific and
Cultural Organization

**Brasilia
Office**