

THE INTERNATIONALIZATION OF THE FEDERAL INSTITUTES: A STUDY ON BRAZIL-CANADA COOPERATION

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ABSTRACT: The internationalization of educational policies constitutes a relevant theme, mainly due to constant changes resulting from globalization. Educational standards have been influenced and shaped by global market trends. Thus, the purpose of this article is to present the agreement signed between the Federal Network of Vocational and Technical Education of Brazil and Canadian educational institutes. The methodology used in this article was that of an exploratory study based on the analysis of the documents published by the stakeholders, such as: the Federal Institutes, Science Without Borders Program and Canadian educational institutes.

Keywords: Globalization. Internationalization. Vocational and Technical Education.

L'INTERNATIONALISATION DES INSTITUTS FÉDÉRAUX: UNE ÉTUDE SUR LE BRÉSIL-CANADA

RÉSUMÉ: L'internationalisation des politiques d'éducation constitue un thème pertinent, principalement par des changements constants découlant de la mondialisation. Les normes éducatives ont été influencées et façonnées par les tendances du marché mondial. En conséquence, cet article vise à présenter l'accord signé entre le Réseau Fédéral l'Éducation Professionnelle et Technologique du Brésil et les établissements d'enseignement du Canada. À cette fin, une étude exploratoire a été réalisée sur la base de l'analyse des documents publiés par les acteurs concernés, tels que: les instituts fédéraux, le programme Science sans Frontières et les établissements d'enseignement du Canada.

Mots-clés: La mondialisation. Internationalisation. L'enseignement professionnel et technologique.

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A INTERNACIONALIZAÇÃO DOS INSTITUTOS FEDERAIS: UM ESTUDO SOBRE O ACORDO BRASIL-CANADÁ

RESUMO: A internacionalização das políticas educacionais constitui-se em tema relevante, principalmente pelas constantes mudanças decorrentes da globalização. Os padrões educacionais têm sido influenciados e moldados por tendências globais mercadológicas. Nesse sentido, o presente artigo tem como objetivo apresentar o acordo firmado entre a Rede Federal de Educação Profissional e Tecnológica do Brasil e instituições de ensino do Canadá. Trata-se de um estudo exploratório, com base na análise dos documentos publicados pelos atores envolvidos, tais como: Institutos Federais, Programa Ciência sem Fronteiras e as instituições de ensino canadenses.

Palavras-chave: Globalização. Internacionalização. Educação Profissional e Tecnológica.

Introduction

The year 2008 is considered a milestone for vocational and technical education in Brazil. That year saw the creation of the Brazilian Federal Network of Vocational and Technical Education and of the Federal Institutes of Education, Science, and Technology (IFs), through the merging or transformation of three different types of schools: 1) Federal Centers of Technical Education (Cefets), 2) Agro-Technical Schools and 3) Federal Technical Schools. The enactment of Law no. 11,892/2008 brought significant changes in the context of vocational and technical education in this country, arising mainly from the expansion of the Federal Network and the large amount of resources invested in it.

Following the enactment of the Law in 2008, the IFs took on similar attributes to those of the Brazilian Federal Universities, as demonstrated by the text of Law no. 11,892, Art. 7, item VI, which deals with the courses to be taught in higher education, such as courses in technology, vocational courses, bachelor's degree and engineering courses, and *lato sensu* and *stricto sensu* post-graduate courses.

The purpose of this article is to present the existing agreement between Canada and the Federal Network of Vocational and Technical Education of Brazil designed to provide training for Brazilian technologists through the government program Science Without Borders (SWB). To this end, first some aspects concerning globalization and the process of internationalization of educational policies are highlighted. Subsequently, a history of the Federal Network, starting with the

creation of Schools of Craftsmen Apprentices in 1909 up to the current phase of internationalization as well as an overview of the context of the major transformations undergone within vocational and technical education in Brazil is presented.

The existing agreement between Brazil and Canada is presented next along with details regarding the main stakeholders, the memorandum of understanding signed by the institutes, the requests for proposals, selection criteria, and the purposes of the agreement.

Globalization and the internationalization of educational policies

Many researchers from various parts of the world (CUDMORE, 2005; THAM, 2013; MCCABE 2001; YEMINI, 2012, FRIESEN, 2012) have been discussing globalization and its impact on educational policies.

Knight (2004) explains that there is a constant confusing of the terms globalization and internationalization. This author seeks to clarify the relationship between these two terms. Globalization concerns the flows of technology, economy, knowledge, people, values, and ideas across national borders. Internationalization began to become prominent in the education debate from the late 1980s onwards and is used with different meanings, namely: academic mobility, international academic programs, the provision of education to other countries through bilateral agreements, as well as the growing trade of higher education. Analyzing the relationship between globalization and higher education, Cudmore (2005) points out that the World Trade Organization (WTO) promotes globalization through opening all areas of social life, including public services (e.g. education) to international capital. This occurs through agreements such as the General Agreement on Trade and Services (GATS), which regulates the international trade in services, such as tourism, transport and telecommunications. Now the GATS also includes health and education which, in Canada, have traditionally been in the purview of the public sector.

Examining some definitions for the terms internationalization and globalization, McCabe (2001) suggests that internationalization is more related to cooperation and understanding between countries, whereas the term globalization brings negative connotations related to cultural neocolonialism and homogenization.

For Castells (2003), the new economy is organized around networks of capital, business and information, whose access to technological knowledge is the root of productivity and competitiveness. Networks are made up of interconnected nodes, which form systems which are open and susceptible to innovation. These

networks are appropriate instruments for the capitalist economic system since they are based on innovation, on globalization and on the forms of work which focus on adaptation and flexibility. Put another way, these networks continuously promote the deconstruction and reconstruction of culture. (CASTELLS, 2003)

According to Rizvi and Lingard (2010) globalization brought advantages to the capitalist economic system, because it extended the reach of markets, enabling the companies to influence larger areas of the globe. Improvements in the flow of communications and information and the rationalization of distribution techniques allow goods to move at high speeds all over the world. However, the authors argue that global integration is far from complete and benefits some people and groups more than others.

Abdi (2012) has a different understanding of the meaning of globalization and challenges the mainstream concepts debated in the academic world. According to Abdi (2012), current globalization is intensive, complex and has an impact on virtually all systems, including the educational systems. Information Technology, which could represent the possibility of liberation, aided in the development of these aspects of globalization. However, those controlling the information technology use it to expand and reinforce their domination.

In this sense, education is designed to meet the needs of the market. For Galway (2000) the commoditization of education is the process of transforming education into a commercial product. Educational policies have been influenced by global standards and models seeking greater efficiency, as seen in standardized tests designed to evaluate and highlight the highest-performing schools. This educational policy based on the idea of human capital is very different from policies based on the concept of education as a means of building society. (SHULTZ, 2012)

Ball (2012) highlights that as the educator's job is translated into key performance indicators, teaching becomes a contract. When education is treated as a commodity, the school becomes an attractive investment option for the capitalists. The results of this transformation can be seen in the increasing participation of the private sector in education.

Globalization, decentralization, privatization and accountability have set the framework for educational policies increasingly devoted to measuring student performance. In Brazil tests such as the National High School Exam (Enem), Evaluation System of Basic Education (Saeb) and the Brazil Test, all of which follow this conceptual framework. The World Bank funded projects in several Brazilian States have quality, decentralization and accountability as basic premises. (AKKARI, 2011)

In the research done by Galway (2000) on the international recruitment by The Colleges of Applied Arts and Technology of Ontario (CAATs), the three

main reasons given by the institutes to justify their recruitment of international students were: the opportunity to generate revenue, the opportunity to bring foreign perspectives into the local student body, and the opportunity to promote international trade relations.

Luijten-Lub, Van der Wende and Huismanuma (2005) performed a comparative analysis of the policies for internationalization of higher education in seven Western European countries and indicate that internationalization is not limited to the movement of students, but, more broadly, internationalization plays an economic role in society as a whole. For these authors, the growing impact of globalization and internationalization is a challenge for government policies and actions.

The Federal Network of Vocational and Technical Education

Vocational education had a late start in Brazil. For Cunha (2000), the slave relationship worked as a disincentive to the training of workers. In the imperial period, the free workforce was not inclined to perform activities done by the slaves, such as carpentry, bricklaying, metalworking etc. There remained a connotation of ownership in employer/employee relationships, which repelled the freemen.

The year 1909 was a landmark for vocational education. In 1909, the President of Brazil Nilo Peçanha created nineteen schools of craftsmen apprentices. The rationale for the creation of these schools was to educate and train underprivileged children, as well as keep them away from idleness - considered at that time to be a vice and a gateway to a life of crime. (BRAZIL, 2010)

In *Educação não é privilégio* (Education is not a privilege), Teixeira (1977) highlights Brazilian social dualism in education. Education for work directed towards the lower classes and cultural education exclusively for the elite. The school for all was never for all, rather it has always targeted the elite. Set aside the vocational schools, all remaining establishments kept the spirit of education for the elites, compounded by prejudice against manual labor arising from the heritage of slavery.

In the 1930's the Brazilian economy was based on agriculture for export. From the 1940's onward, it became more and more based on industry. This shift in the economy helps to explain the emergence of public policies directed toward the creation of schools for craftsmen apprentices. (BRAZIL, 2010) The beginning of 40's is characterized in Brazil by the economic model of substitution of imports designed as a policy to fight the effects of global crisis of 1929. (FREITAG, 1980)

Machado (2012) highlights two aspects in the educational context of 1930 that had repercussions in the organization of industrial training: increasing industrialization and the interventions and decision-making of the State, especially after 1937 with political and administrative centralization and authoritarianism. The training of workers began to intensify pursuant to the ideals of modernization, progress and development. (MACHADO, 2012)

In the context of economic change in Brazil, the Constitution of 1937 in article 129 designated the State as responsible for vocational education:

O ensino pré-vocacional profissional destinado às classes menos favorecidas é em matéria de educação o primeiro dever de Estado. Cumpre-lhe dar execução a esse dever, fundando institutos de ensino profissional e subsidiando os de iniciativa dos Estados, dos Municípios e dos indivíduos ou associações particulares e profissionais. (BRASIL, 1937)¹

In the 1940s some initiatives emerged in the field of professional training, foremost of which was the promulgation of Decree-Law 4,073 in 1942, which created the Organic Law of Industrial Education to serve the interests of workers, businesses, and the nation. The purposes of industrial training, according to the Law, were the training, capacity building and the betterment of industrial workers in order to increase efficiency and productivity. (BRAZIL, 1942)

The transformation of schools of craftsmen apprentices into Industrial and Technical Schools also occurred in 1942 (Decree-Law no. 4,127). After this period, other changes impacted the development and functions of these schools, such as their classification as Federal Institutes, which began in 1959, the instituting of the National Technical Education System in 1994 and their transformation into *Centros Federais de Educação Tecnológica* (Cefets) [Federal Centers for Technical Education], which occurred in 1999. (BRAZIL, 2010)

For Machado and Velten (2013) structural duality in the supply and organization of vocational education in Brazil was perpetuated in the reform of vocational education which was first promoted in the second half of the 1990s, especially with Law no. 9,394/96, Decree no. 2,208/97 and MEC Ordinances 646/97 and 1,005/97. For the authors, the separation between vocational education and academic education pursuant to Decree no. 2,208/97 stimulated the emergence of different management models for vocational education, especially at the state level. In fact, these measures turned out to be counterproductive for cooperation between state and federal governments in this field.

Addressing the education of youth and adults, Shiroma and Lima Filho (2011) point out that, historically, educational policies for the working classes in

Brazil did not favor the completion of grade school. For these authors, the Brazilian social traditions still bear the scars of past colonialism and slavery, shaped by late-coming capitalism and a bourgeoisie clinging to the practice of Government actions which prioritize the interests of political and economic elites.

However, Ferretti (2011) states that, in the current scenario of vocational education it is no longer possible to state that its purpose would be to prepare the working class for available jobs. Today vocational and technical education enables a vertical orientation of education within the same institute, that is, from high school-level vocational training to postgraduate studies. The definition of the courses and programs in vocational education is designed to allow the best use of these studies in a continuous and coordinated manner. (BRAZIL, 2014)

Of all the transformations that have occurred, none had greater impact than the creation of the Federal Network of Vocational Education and the creation of the IFs in 2008. The enactment of Law no. 11,892/2008 had a major impact because it transformed the Cefets, Technical Schools and Agro-Technical Schools into Ifs. (BRAZIL, 2008)

The enactment of Law no. 11,892/2008 brought significant changes to the context of vocational and technical education in Brazil, arising mainly from the expansion of the network and the large amount of resources invested. After the Law was passed in 2008, the IFs gained attributes which are similar to those of the Brazilian Federal Universities, pursuant to article 7, item VI of the Law, which deals with the courses to be taught in higher education, such as courses in technology, vocational courses, bachelor's degree and engineering courses, and *lato sensu* and *stricto sensu* post-graduate courses.

Law no. 11,892/2008 also set limits on the number of vacancies that the IFs should offer. Article 8 determines the distribution of vacancies among the courses, establishing that: a) fifty percent of the vacancies should be provided for high school level vocational and technical courses, primarily in the form of integrated courses for graduates of elementary school and for the general education of adults and youth and; b) twenty percent of the vacancies should be provided to undergraduate courses as well as special teacher training programs, for the purpose of training teachers for elementary education, particularly in the fields of science and math, and for vocational education.

The Federal Institutes seek to promote civic education, act as social network, create environments for the construction and democratization of knowledge, assist in local and regional development, and provide knowledge in an integrated and vertically oriented manner. The IFs have been integrating high school education with vocational training in order to overcome the concept of dual and fragmented schooling. The merger of these two types of education seeks

to create a dialogue between different forms of knowledge: scientific, technical, social, humanistic and vocational. (BRAZIL, 2010)

The creation of the federal institutes was bold, both in concentrating efforts on vocational education and in increasing the quantity of courses to be taught. However, one cannot neglect to mention that ideas like these (integration and vertical orientation of vocational education) were already present in the context of vocational education. Cunha (2000) recalls that the unification of secondary school was also discussed in the Manifesto of the Pioneers of 1932, as a way to prevent the dissociation of white-collar and blue-collar workers.

Throughout the history of the federal institutes, some ideas were rejected and others accepted, certainly reflecting the political, social, and economic context of the country. Currently, Brazil seeks partnerships with other countries, an example of which is the agreement between Brazil and Canada that will be discussed below.

Brief overview of Canada

Canada is a federal constitutional monarchy and parliamentary democracy. The country is divided into ten self-governing provinces and three autonomous territories. This began with the enactment of the British North America Act in 1867. In 1982, this law was renamed the Constitution Act of 1867. (CROOK; TRUSCOTT, 2007)

Education in Canada is the responsibility of each province, as established by section 93 of the Canadian Constitution. Consequently, the provinces play a leading role in education at all levels.

Hough (1990) notes that it is not possible to refer to 'Canadian Education Policy' but only to 'Education Policy in Canada'. This distinction is not due to semantics, but rather pursuant to the Canadian Constitution. With a few exceptions, education is not the responsibility of the federal government, but rather that of each of the provinces and territories individually. Because of this, each province has its own education system and education policy.

Although the distinctions between the systems are the responsibility of each province, and therefore will not be addressed in this study, it is important to know the difference between the two arrangements of education in Canada: 1) College/institute/polytechnic level and 2) University. The first is an arrangement that includes a great deal of hands-on learning through both academics and field/laboratory training, whereas the second is more theoretical and includes post-graduate courses.

Canadian universities, as well as the institutes, polytechnics or colleges are usually organized around associations such as: Association of Universities and Colleges of Canada (AUCC) and the Colleges and Institutes Canada (Cican). The agreements for the internationalization of education between Brazil and Canada, which are similar to the agreement that will be discussed later in this article, have been made through these associations.

The agreement between Brazil and Canada

The internationalization of the Federal Network of Vocational Education is implemented via the Science Without Borders (SWB) program. This program was created by the Ministry of Science, Technology and Innovation (MCTI) and the Ministry of Education (MEC), together with their respective research and development institutes – *Conselho Nacional de Desenvolvimento Científico e Tecnológico* (CNPq) and *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* (Capes) – to promote the consolidation, expansion and internationalization of science and technology. (BRAZIL, [s. d.])

The goals of SWB program are:

Investir na formação de pessoal altamente qualificado nas competências e habilidades necessárias para o avanço da sociedade do conhecimento; Aumentar a presença de pesquisadores e estudantes de vários níveis em instituições de excelência no exterior; Promover a inserção internacional das instituições brasileiras pela abertura de oportunidades semelhantes para cientistas e estudantes estrangeiros; Ampliar o conhecimento inovador de pessoal das indústrias tecnológicas; Atrair jovens talentos científicos e investigadores altamente qualificados para trabalhar no Brasil. (BRAZIL, [s.d.]²)

One of the goals of the program is to provide 101,000 scholarships to be offered in the following models: sandwich PhD, PhD, Postdoctoral, and sandwich Graduate programs, as well as Technological development and innovation programs abroad, and Young Talent Scouting and Special Visiting Researcher programs. (BRAZIL, [s.d.])

There are many areas covered by SWB, such as: Engineering and other technical fields, Exact and Earth Sciences; Sustainable Agricultural Production; Biotechnology; Technologies for prevention and mitigation of natural disasters; Creative Industry (dedicated to products and processes for technological development and innovation); Training of Technicians, among others (BRAZIL, [s.d.]). The study proposed in this article focuses on the Training of Technicians.

Brazil and Canada concluded a *Framework Agreement* for cooperation in science, technology and innovation on November 17, 2008. This agreement was ratified by Decree no. 7,345 on October 27, 2010, whereas the term of the agreement began only on April 19, 2010. (BRAZIL, 2010)

The *Framework Agreement* is based on the important commercial and political relations between Canada and Brazil and seeks to increase collaborative research and development activities, thus leading to the commercialization of new ideas. Both countries are developing an agenda focused on innovation. This agenda is pursuant to the Joint Science and Technology Action Plan that seeks to promote technological advancement and innovation in areas of mutual interest. (CANADA, 2013)

The Brazilian process of internationalization of vocational and technical education began in 2011. The Ministry of Science, Technology and Innovation (MCTI), the Ministry of Education (MEC), the *Conselho Nacional de Desenvolvimento Científico e Tecnológico* (CNPq) and the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* (Capes) with the support of the Association of Canadian Community Colleges (ACCC) released their first exclusive request for proposals, ACCC no. 107/2011, for selection of students from the Federal Network of Vocational and Technical Education (Federal Network). (BRAZIL, 2011)

This RFP was the result of the agreement for cooperation in the field of vocational, scientific, and technical education, signed on October 8, 2010, between the ACCC and the National Council of the Institutes of the Federal Network of Vocational, Scientific and Technical Education (CONIF). (CONIF, 2010a)

The ACCC³ is a national Canadian organization, with voluntary membership, which represents colleges and institutes in Canada and internationally. Its mission is to defend and support learning provided by member institutes and their vision is to be the most respected voice in higher education. (ACCC, [s.d.])

The CONIF was established in March 2009, shortly after the enactment of Law no. 11,892/2008. This Council brings together all the Federal Institutes Vocational, Scientific and Technical Education in Brazil and its purpose is to discuss the proposition and promotion of policies for the development of vocational and technical education, research and innovation. (CONIF, 2010b)

Another selection process within the scope of the agreement between the ACCC and the CONIF was RFP no. 147/2013, held in July 2013. Enrollment was restricted to students of undergraduate technical courses in fields and topics of interest to the SWB Program. The criteria for selection of students included proficiency in the language of the country of destination and good academic performance. Preference was given to students who received grades of over 600 out

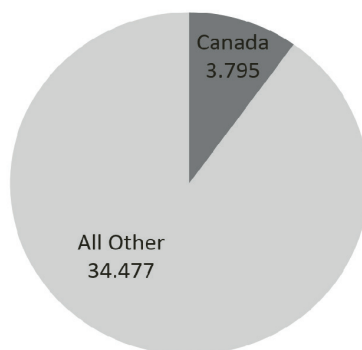
of 1000 in the National High School Exam (Enem), won prizes in Science Olympiads or participated in the Scientific Introductory Program (BRAZIL, 2013a).

The Federal Network Institution must sign a Membership Agreement with the SWB Program, assuming the commitment to provide recognition of the credits obtained by the students in the foreign institute. (BRAZIL, 2013b)

In addition to this agreement with the SWB Program, the IFs need to sign a memorandum of understanding with the Canadian institute that will receive the Brazilian student. The Federal Institute of Brasília (IFB), for example, signed such agreement in November 2010 with the Niagara College and, in May 2013, with the Camosun College of British Columbia. The purpose of these agreements is to establish cooperative relations and to promote initiatives of mutual interest.

The SWB program set up a web site (Control Panel) to provide information regarding the scholarships awarded. This Control Panel allows the classification of the scholarships awarded by country of destination, field of study, gender, and name of the student's alma mater. The data collected in November 2013 shows a total of 38,272 scholarships awarded, of which 30,771 were provided to sandwich PhD programs. The main field of study is engineering and related courses (15,645 scholarships), while the top country of destination is the United States of America (8,863 scholarships) with Canada in third place (3,795 scholarships). Figure 1 shows the number of scholarships to Canada as a percentage of total scholarships awarded.

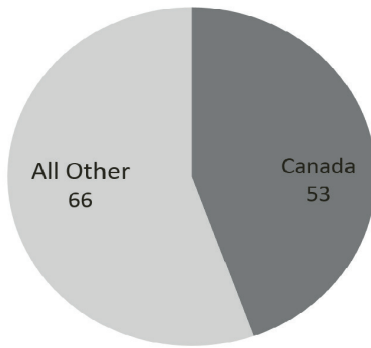
Figure 1
Brazil: Science Without Borders total scholarships awarded
- information organized by country of destination
(data from November 2013).



Retrieved from: <<http://www.cienciasemfronteiras.gov.br/web/csff/painel-de-controle>>. Accessed on: 2 Nov. 2013.

The numbers of scholarships awarded by field of study show only 0.3% (119 out of 38,272) awarded to students in undergraduate level technical courses and Canada as the main destination for these students (53 out of 119) as presented in Figure 2.

Figure 2
Brazil: Science Without Borders total scholarships awarded to students in undergraduate level technical courses - organized by country (data from November 2013).



Retrieved from: <<http://www.cienciasemfronteiras.gov.br/web/csf/painel-de-control>>. Accessed on: 8 Nov. 2013.

The RFP no. 147/2013, coordinated by Capes, presented as a preliminary result a list of 668 students. Capes recommended these students; however, the allocation of the pre-selected candidates is the responsibility of the partner in the program. (BRAZIL, 2013c) It has not proven possible to obtain the results of RFP no. 107/2011.

In 2010 the Federal Institutes, represented by Conif, and the ACCC signed a Memorandum of Understanding. The purpose of this document is to increase cooperation in the area of vocational, scientific and technical education and develop joint actions for the exchange of knowledge and information concerning the higher education systems in Brazil and Canada.

Among the considerations therein, the MoU points out that the establishment of educational partnerships across national borders has become a critical factor in preparing college students. The purpose of this cooperation agreement is the training of highly skilled and capable workers to provide the skills required in today's globalized and highly technological context. (CONIF, 2010a)

In addition to assisting the mobility of students in the pursuit of international expertise, the Memorandum emphasizes the movement of managers for the exchange of best practices in the development of programs and courses. It emphasizes applied research to find innovative solutions for trade and industry, in both Canada and Brazil. A term of five years is defined in the document. (CONIF, 2010a)

Discussion

As seen in the text, internationalization and globalization have meanings which are different (KNIGHT, 2004) but nevertheless very closely related. It was the international flow of people, information, and technology that enabled us to cross boundaries and get in touch with educational systems from around the world to exchange experiences and interconnect knowledge.

For Castells (2003), information represents the main ingredient of our social organization. The exchange of information and knowledge between countries such as Brazil and Canada brings benefits to the development of both countries.

It should be pointed out that the Brazil-Canada agreement is a bold strategy to combine efforts in promoting innovation and technological development. The high level of visibility achieved by the ACCC during their visit to Brazil, especially within the Federal Institutes, stimulated the participation of the students. Conif has also been conducting outreach events, such as the *III Brazil-Canada Seminar*, held in April 2013, in the city of Salvador (BA), which sought to broaden the cooperation between the countries as well as to promote the internationalization of the institutes. (IFB, 2013)

It is important to highlight that this agreement is restricted to the students of technical courses. The training of technicians represents only part of the vacancies of the Federal Institutes. Pursuant to Law no.11,892 art. 8, the priority of the Federal Institutes is elementary education, preferably in integrated courses and education for adults and youth. It is necessary to consider that this same law mandates twenty per cent of vacancies be set aside for training teachers, particularly in math and science.

Throughout their existence, the changes undergone by the Federal Institutes reflected the existing economic, social and political context in Brazil. This is evident on numerous occasions, such as: the rise of industrialization in the 1930s and the 1937 Constitution, the Organic Industrial Law in 1940, the Law of Guidelines and Bases for Education in 1996, Decree no. 2,208/1997 and Law no. 11,892 in 2008.

Based on the documents analyzed, one can say that the Federal Institutes have left behind the old stigma of duality. The vertical integration and the expansion of the educational levels enabled these Institutes to achieve a performance similar to universities, although restricted to the roster percentages defined by law.

From the moment that Law 11,892/08 mandated that the Federal Institutes offer 20% of their vacancies to undergraduate courses and teacher training, these institutions assumed a new and important responsibility. As vocational education institutes, incorporating this new field of training is a challenge and will certainly require the institutes to adopt a new approach. Internationalization may become an interesting window of opportunity in this field of activity.

As with the undergraduate students, one has to consider that 50% of the vacancies offered are for high school level students. However, the mobility of students within this educational level may not be the most productive strategy. Furthermore, there are other categories of analysis in this field of education which could be developed: the curriculum, teaching-learning, teaching practice and management are some of them. The possibility of internationalization in other areas needs to be taken into consideration on a practical level, not only in the texts of the agreements reached. Knowing how vocational education is taught in other countries could be a first step.

In 2005, Luijten-Lub, Van der Wende, and Huisman wrote that the impacts of internationalization were a challenge for government policies and actions. From what is currently seen, they still present a challenge. The socio-economic role that internationalization plays in society needs to be further explored. Research into the results of international agreements needs to be increased. It is necessary to define the benefits, for both sides, produced by international agreements following the cessation of said agreements. Future research could explore, for example, the results of international agreements, such as the agreement between the CONIF and the ACCC that will expire in 2015.

Notes

1. Pre-vocational professional education is oriented towards disadvantaged people and in the field of education this is the first duty of the State. The State must fulfill this duty, founding institutes of vocational education and subsidizing the initiatives of the states and municipalities and those of individuals and professional or private associations. (BRAZIL, 1937)
2. Invest in the training of highly qualified personnel in the skills and abilities necessary for the advancement of the knowledge society; Increase the presence of researchers and students from various levels in institutes of excellence abroad; Promote the international inclusion of Brazilian institutes by providing similar opportunities for foreign scientists and students; Expand the innovative knowledge of the workforce in technology and industry; Attract young scientific talent and highly qualified researchers to work in Brazil. (BRAZIL, [s.d.])

3. In 2014, the ACCC was renamed the Colleges and Institutes Canada (CICan). Retrieved from: <<http://www.collegesinstitutes.ca/about/>>. Accessed on 20 Nov. 2014.

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Received on February 23, 2015.

Approved on October 23, 2015.

DOI: <http://dx.doi.org/10.1590/ES0101-73302015146352pt>