



FACULTAD DE ECONOMÍA Y CIENCIAS EMPRESARIALES

TOPIC: PROPOSAL OF A MODEL OF ACADEMIC AND SCIENTIFIC
COOPERATION BETWEEN THE GOVERNMENTS OF ECUADOR AND
CANADA

TRABAJO DE TITULACIÓN QUE SE PRESENTA COMO REQUISITO
PARA OPTAR EL TÍTULO DE **INGENIERO EN CIENCIAS
EMPRESARIALES**

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Summary

Increasing the quality of Higher Education has been a major concern in the last couple of years for governments around the world. Establishing the bases of an educational system that met the requirements of a more interconnected world has become the first thing in the agenda of the latest summits about education. The governments know that it is an obligation to provide a better education to the future professionals that are the ones with the responsibility of leading the future societies in this global community.

Internationalization has become an important strategy for universities in order to provide a quality education. This has become a trend for universities around the world as they are in the search of qualified students from different backgrounds to enrich their university community. This research is a study on the cooperative agreements that universities can undertake in order to achieve global academic success. Inter-university Cooperation and University Development Cooperation are two defined types of actions that a university can participate in.

Inter-university Cooperation normally occurs between universities located in developed countries; these universities share many academic similarities and are recognized for their quality of education. University Development Cooperation is primarily for Universities of different backgrounds, however, a primary university is used to mentor another in developing and sustaining its educational curriculum.

Canada and Ecuador share many academic similarities in their higher education structure and many have been developing a solid relationship over time within different priority areas. Ecuadorian and Canadian universities are continuing to develop academic and mobility agreements with the opportunity of sharing experiences and improving cooperation while simultaneously allowing for the evolution of their education systems.

The academic and scientific agreement developed in this research project is meant to help all the parties that take part in the higher education system of both of these countries. It is already implied that education is the pillar of future societies; and that the exchange of information and development of technology can help to achieve a better quality of life.

CHAPTER 1

BACKGROUND

Introduction

International Cooperation has become really important in the last couple of years. Governments aim to have long-term agreements across borders has increased in order to provide the best life standards to their societies and work along with other countries in the pursuit of development in such areas as communications, education, technology, innovation, and in so many other areas; in this way governments open the doors to progress and development in order to maintain a stable economy in this challenging world. Nowadays, most of the international agreements among countries are trade agreements to reduce or eliminate custom taxes in order to freely import and export products from one country to another (De Wit, 2011).

Now, in this whole picture of agreement and cooperation one of the predominant actors are the universities. For many years universities have been consider drivers of development due their role in training students with knowledge; furthermore as explained by Maringe & Foskett (2010, p. 1) universities have “social, cultural, ideological, political and economic responsibilities to society”. It is important not to forget that the people that is at the university at this precise moment are the ones that are going to take decisions in the future; therefore, students need to be prepare by the universities with the best education and knowledge. That is the reason for governments to invest a lot of money in education, to prepare students to be able to act in a globalized world.

But this is easier to say than to do, many developing countries don't have the resources to invest in good education, the governments try to do their best but is not enough. Many universities in these countries lack of infrastructure and resources to conduct research and promote innovation, which are key drivers of development. The UNESCO (2009) being aware of these problems has been working in reducing the gap between developed and developing countries. UNESCO has organized a lot of summits in order to identify the mainly challenges found in education as well as the alternatives that government have to face them. One of these alternatives is international academic cooperation between universities.

International cooperation between universities is not something new, but there wasn't a model established for international academic cooperation before. The system has improved with the time, making internationalization the first thing in the universities agenda. Nowadays there are a lot of nonprofit organizations that have set standards on academic cooperation agreements; helping the academic community with publications and reports that shows the progress and results of different programs around the world; even governments are making research about how the internationalization of their universities is going to help the development of their future economies and societies. Universities know that in order to offer the best education it is necessary to provide to the students an international experience. This experience goes from short to long exchange programs for undergraduate and graduate students, mobility of faculty staff across universities, open forums on research and innovation, joint research programs and the list keep going (De Wit, 2011).

With all this facts in mind Ecuador is not falling behind in the UNESCO efforts to reduce the gap between countries. In the last couples of years Ecuador has invested a lot of money in education allowing Ecuadorian students to have an international experience. The government is providing scholarships and financial aid that turn into more opportunities for students to choose the best education in the best universities in the world. Also, Ecuador is evaluating its educational system in order to provide a better education; keeping in mind that education is one of the pillars for development the government started a process for the evaluation of all the universities in the country; closing all the institutions that didn't offer a quality education and demanding improvements in education in the remaining universities. This whole process has just started but this is the proof that education in Ecuador is going to improve in the long term (Senescyt, 2012).

Canada on the other hand has one of the best education systems in the world, the Canadian government's efforts have been focused on providing education to its citizens and also to the rest of the world attracting the most qualified people to study in their universities. Canada is very clear that the internationalization of its universities is what will ensure the future prosperity of its society, educating internationally experienced professionals able to face the challenges of the future. For that aim Canada is making efforts in marketing its education in several ways using international fairs, conferences, forums and through their alumni network. Canadian government wants the world to know that its country offers a great environment for international students; due its diversity and tolerance to other cultures Canada has become one of the top destinations for people looking for international studies (Advisory Panel on Canada's International Education Strategy, 2012).

International cooperation agreements most serve students to reach the best education possible. Giving students the opportunity of having an

international experience with the solely purpose of providing them with the tools necessary to face global challenges in their countries' economies, ensuring the prosperity and wellbeing of their societies. An academic and scientific cooperation agreement between the governments of Ecuador and Canada can help to increase the bonds between these two societies. The results of cooperation have the potential to be positive in all ways and it is an incentive to research and development (Sebastian, 2011).

Objectives

General Objective

To develop a proposal of a model for academic and scientific cooperation between the governments of Ecuador and Canada, establishing the lineaments of the agreement that benefit both countries.

Specific Objectives

1. Analyze the present models for academic and scientific cooperation.
2. Analyze the impact of a model for academic and scientific cooperation between Ecuador and Canada, putting emphasis on the infrastructure, funding and education system of both countries.
3. Develop the lineaments that allow the academic and scientific cooperation between Ecuador and Canada.

Problem statement

In the latest years the debate about the future of education has been a constant topic of analysis worldwide thanks to the technological and communication advances, tools that provide advantages that were not available before. The major challenges go from the reshaping of the education system to the role that governments takes to promote a better education; all this to satisfy the demands of a global world. The UNESCO (2009) shows that Higher Education (HE) represents one of the pillars for the development of a global community and a society that is able to manage the new challenges. Also considering that the education and the research have changed due these new trends.

In Ecuador, the government through the Secretaria Nacional de Educaciòn Superior, Ciencia y Tecnología (Senescyt) has developed different programs which purpose is to increase the quality of the education in Ecuador, however, there are many obstacles that need to be solved in order to reach an education of excellence (Senescyt, 2012). The

efforts of the Senescyt are mainly to award scholarships to study in different universities around the world, promoting both the research as the innovation in the Ecuadorian citizens, all this to have a future with professionals very capable that contribute to the wellbeing of the society and a sustainable development. This allows extending education to an increase number of the population, however, this not guaranty the success of education.

The UNESCO mentions that this new dynamics between governments and educational institutions requires:

Partnerships and concerted actions in the national, regional and international levels with the purpose of assure the quality and sustainability of the HE systems worldwide. The HE should reflect the international, regional and national dimensions, in both teaching and research (UNESCO, 2009, p. 5).

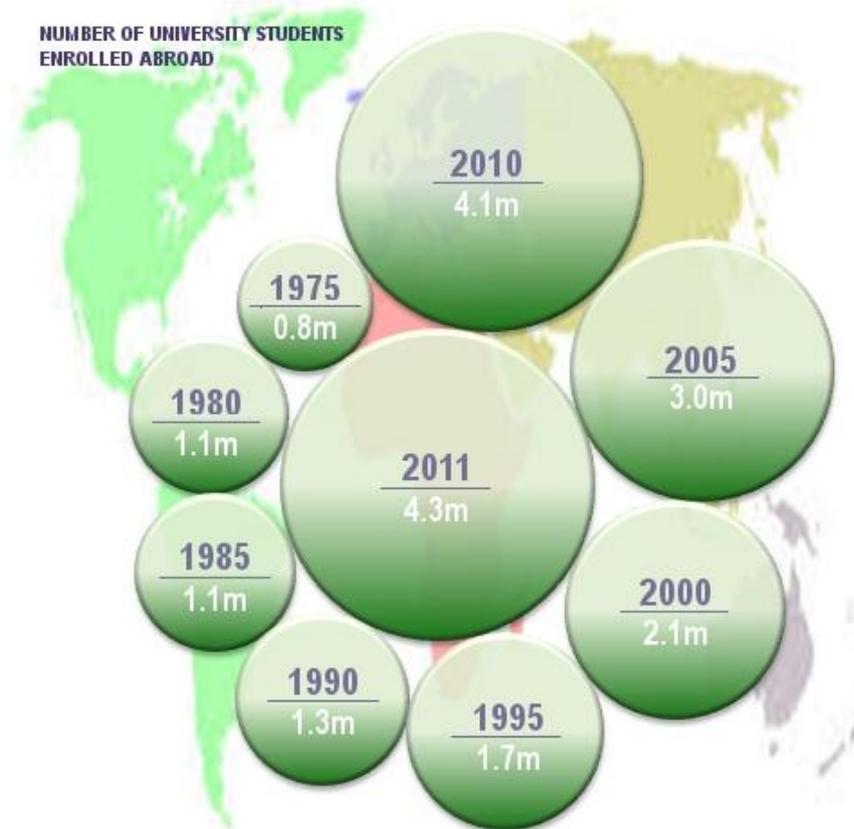
The search of agreements that promote the academic and scientific cooperation to increase the level of HE is necessary if the goal is to reach the levels of the societies in the developed countries. That is the plan to obtain a sustainable society that is ready to contribute with the future economic development and the growth rate of the country.

Justification and Delimitation

International Students Worldwide

In 2011, nearly 4.3 million people were studying outside of their home country. The OECD (2013) calculates that between 2000 and 2011 the number of students enrolled worldwide more than doubled (see figure 1), with an annual growth rate of 7%. Europe is the top destination hosting 48% of international students; followed by North America which hosted 21% that takes into account Canada with a 5% and United States with 16%. It is important to mention that Australia, Canada, France, Germany, the United Kingdom and the Unites States together receive more than 50% of all these students.

Figure 1: Number of International Students Enrolled Abroad



Source: “Education at a Glance” by OECD, 2013.

Canada

Canada is a country with one of the highest levels of human development index (HDI) in the world with 0.911 according to the United Nations Development Program (UNDP), which is the organism in charge of constructing the indexes to evaluate the progress of the countries. (UNDP, 2013)

The bilateral relations between Canada and Ecuador started in 1961 with the designation of the first ambassador of Canada in Ecuador, Jean Morin. Since then these relations have been increasing through the signing of different agreements and treaties, being the most important: “The Agreement for the Promotion and Reciprocal Protection of Investments” and “Agreement of Cooperation in the Areas of Education and Training between the Government of the Republic of Ecuador and the Government of the Republic of Quebec” (Convenio de Cooperación en las Areas de Educacion y la Formacion entre el Gobierno de la Republica del Ecuador y el Gobierno de la Republica de Quebec, in Spanish; MMRREE, 2013). In fact this last agreement is of great importance and can serve as reference for this project due this agreement shows the willingness of both countries to establish agreements that brings mutual benefit in the HE system.

According to the OECD (2013), the number of Ecuadorian citizens studying overseas reach roughly a little more than 12600 students, with only 306 choosing Canada as a destiny for their studies, being Spain and the United States the countries that receive more Ecuadorian students. Anyways, Canada has received 203823 students from all over the world being China and the United States the ones who provide more students. These facts show that there is a great possibility to increase the amount of students between Ecuador and Canada if the student population is identified in the right way and all the efforts are well directed to make their international studies a reality.

Canada, through a Report developed by the Advisory Panel on Canada's International Education Strategy, states that "International Education is a mayor driver for the future prosperity of Canada, in such areas as innovation, commerce, human capital development and labour market" (Advisory Panel, 2012, viii) which once again highlights the desire from Canada to attract a greater number of international students, knowing that in a near future these students may be part of the engine that moves the Canadian economy and ensure its life standards.

In the same way the Sub Secretary of Education of the Senescyt (2012), Héctor Rodríguez, says that the government has invested a lot in education in the last couple of years which represents "a great advantage in comparison to other countries". Also mentions that from Latin America, Ecuador is currently the country that is investing more in universities in relation to its Gross Domestic Product. This is why nowadays the Senescyt has the resources to offer international scholarships to Ecuadorian students for them to pursuit a career that benefit the future of the country. In 2012, estimates showed that almost 5000 students hold scholarships for Master and a PhD programs.

Living an international experience will allow students not only to know another culture or language, but also it is an opportunity to learn of a different education system, new study methodologies and technologic advances in the host country, also it will be possible for students to known a different reality of how is the world and to have a glance of different points of view from the host and international students at once. This experience will help students to answer faster to any environment in a future opportunity because any international experience represents a challenge to adapt and change to a new set of things in the host country. Furthermore, the experience will help to create longstanding bounds between all the internationals students that will promote the formation of a net that will be spread all over the world, which make this opportunity suitable for the globalization era the world is living in and to foment international cooperation (Ponce León, 2005).

This research is focused primarily in analyze all the advantages and disadvantages that can be faced at the moment of the sign of an Academic Cooperation Agreement between two countries, in this case Ecuador and Canada. This research will extend to the reality of both countries and their HE system at the time of developing the research. Once all this information has been gathered, the next step is to name and suggest possible financing sources to make possible for this agreement to become a reality, primarily these are scholarships and financial aid to students and teachers for them to study and to obtain training in an international institution. These financial sources must be from organizations of both countries. Finally, once defined the previous two points, the aim of the research will be to establish the lineaments of the academic and scientific cooperation that can benefit both governments and societies. It is important to clarify that the research is not intended for executing this proposal; this research is of a descriptive nature and can serve as reference for future research in the subject.

The academic and scientific cooperation is a topic that has gained great importance just in recent years which is why the information is not as specific as needed and also is limited; the information is very wide and disperse and require a deep recopilation of data in order to finish the research. Most of the information comes from gubernamental organizations therefore all the data there is of public acces; its veracity will depend on the organizations methodology of gathering and organizing the information.

Framework of Reference

In a brief review of the literature about academic cooperation agreements between the various HE institutions around the world it is possible to find reports that let to explain the internationalization process that the education system is going through. The UNESCO (2009) as example has been conducting different global and regional meetings to face the new challenges that arise with the globalization of education. This global meeting is known as World Conference on HE and was held in 2009 to evaluate the progress since the last two meeting that were made in 2003 and 1999 respectively; being the one in 1999 of great importance due that this conference assessed the challenges that have raised to the universities in the XXI century.

In the 2009 Conference was issued a statement with conclusions reached at the meeting that included the participation of around 150 countries. These findings give importance mainly to: the social responsibility in HE; access, equity and quality; internationalization, regionalization and globalization; learning, and research and innovation; the HE system in Africa and finally the actions to be taken by the Member States to safeguard these principles. Regarding internationalization the UNESCO mentions that:

The HE institutions around the world have a social responsibility to help reduce the development gap by increasing the transfer of knowledge across borders, particularly to developing countries, and try to find common solutions to encourage brain circulation and mitigate the negative impact of the brain drain (UNESCO, 2009, p.5).

It is part of the Millennium Development Goals to find the ways to achieve this integration that will produce a long-term benefit to the entire world population; with a comprehensive education system that is open and accessible to all, with “joint research initiatives as well as exchanges of students and faculty members that promote regional cooperation”. In the same way incentives should be created to increase and balance academic mobility and thus promote an authentic multilateral and multicultural collaboration. UNESCO (2009, p. 6) also emphasizes that a universal higher level system is needed, trying to accommodate the system that present the best results in the areas of quality, governance, and research and innovation.

Also it is important to keep in mind the challenges that HE faces at the moment of going global. Maringe and Foskett (2010, p. 6) summarized some of the issues like: the prevalence of a limited view of internationalization, the dominance of Western models of globalization, the lack of coherence in the nature of university products suited to a globalized world, the lack of strategies for measuring internationalization performance, the incoherent strategies for curriculum internationalization, the difficulties in making transitions from isolated to participative staff working models and a lack of suitable leadership for university internationalization.

In the same way Foster (as cited in Maringe & Foskett, 2010) identifies a economic obstacles needing reform in order to allow HE institutions to work together in a globalized era. These include:

- the need to remove specific taxes to education imposed in some countries;
- the need to review the issue of outright bans of educational materials and services from other countries;
- the need to review the issue of restrictions on online instructional material from abroad;
- reviewing delays in government approval of foreign programs;
- the need to facilitate staff and student mobility across nations.”

In 2012, the Canadian Government through the Advisory Panel on Canada’s International Education Strategy (2012) made a report to assess the benefits that represent to Canada the inclusion of international

students in the various areas of Canadian Life. As the report shows, Canada is willing to continue reaching more students from different parts of the world as the government considers international students as an important factor to ensure the future economic and social development of the country.

Canada has a strong program to promote Canadian education system and efforts to attract international talent has increased in recent years through various programs ranging from grants for short periods of research to financial support that allow the search of a career in the Canadian HE system. And Canada is not only interested in attracting international students, but also wants more Canadians to have the opportunity of an international experience as there are several benefit of studying in other countries. One of the reasons and perhaps the most important is that Canadians will have the opportunity to see the world panorama from several points of view through the exchange of information with their classmates from all over the world. Clearly, Canada knows the importance of internationalization to reach development, and is making every effort to meet the specifications required in order to be part of an International Academic Agreement.

Canada's perception about future is to become the leading light in international education to captivate the top talent from around the world and prepare Canadian citizens for the global marketplace, so they can provide key building blocks for the country future prosperity. In that sense Canada takes international education as a pillar for development in the areas of "innovation, trade, human capital development and the labour market". Also welcoming international education for all of its education system gives great benefits to every community in Canada, regardless of its background (Advisory Panel on Canada's International Education Strategy, 2012).

The Advisory Panel (2012) through the report outlines the benefits that international education brings to Canada's society:

- An international dimension into the teaching, research and service activities of Canadian institutions supports "Canada's science and technology (S&T) and innovation agendas";
- International education allows Canadians to acquire a global perspective;
- Canada with the assistance of its international alumni network gains supporters who can help in international trade by opening doors to international partners;
- An international education plan can help Canada in dealing with demographic and workforce issues;

- International education facilitates economic development and growth, workplace creation, and increased international trade and investment” across all of Canada.

The Canadian government is taking an active role in promoting its education system; all components of its education sector have been active for a while in the international arena, furthermore the government have recognized education as a “key pillar of the bilateral relations with key countries”. In top of that, the Organisation for Economic Co-operation and Development (OECD) (2013) consider than more than 4.3 million tertiary-level students (in 2011) were studying outside their country of citizenship. The OECD also mentions that North America is the second destination for international students and that Canada is chosen by 5% of this total.

It is important to highlight that Canada is one of the countries in the OECD that have higher tuition fees for international students, but it doesn't mean that tuition fees are higher in general, it just mean that international students pay more than Canadian students. According to the Advisory Panel, Canadian's tuition and living costs are fairly affordable in contrast to other countries such as the United Kingdom and the United States.

Canada's effort to promote Canadian Education is express in a plan made by the Council of Ministers of Education, Canada (CMEC) in 2011 where some actions were proposed to accomplish the following five objectives (2011, pp. 5 – 8):

- Increase Canada's competitiveness in the international marketplace trough the promotion of the Education au/in Canada brand and the development of a global identity that reflects the value of educational.
- Increase the efficiency and transparency of the processes through which international students obtain the necessary permissions to travel to and study in Canada and to remain in Canada after graduation.
- Protect and enhance Canada's reputation as a provider of high-quality educational opportunities.
- Provide the data and intelligence education providers require in order to meet the needs of clients, react to market developments, and measure success in recruiting and graduating increased numbers of international students.
- Provide more opportunities for Canadian students to study abroad.

The Advisory Panel (2012) highlights that the associations and the universities have taken the initiative and play a significant role in the internationalization process of their Higher Education System. This active role has made possible for Canada to embrace international education strategies in a faster pace. The Advisory Panel also considers that Canada's International Education Strategy should focus on the recommendations shows in table 1:

Table 1: Canada's International Education Strategy	
Themes	Recommendations
Targets for success	<ol style="list-style-type: none"> 1. Double the number of international students choosing Canada by 2022. 2. Introduce and International Mobility Program for Canadian Students to serve 50000 students per year by 2022.
Policy coordination and ensuring sustainable quality	<ol style="list-style-type: none"> 3. Make internationalizing education in Canada a strategic component of Government of Canada official policies and plans. 4. Create a Council on International Education and Research to provide policy advice to the ministers of International Trade, Finance, Citizenship and Immigration, and Industry. 5. Maintain and enhance the quality of the education systems and ensure their sustainability.
Promotion of Education in Canada	<ol style="list-style-type: none"> 6. Focus Canada's promotional efforts on a limited number of priority markets for targeted resourced allocation. 7. Increase marketing of Canada's brand. 8. Develop a sophisticated and comprehensive e-communication system that will serve as a national portal for international students interested in education in Canada.
Investments	<ol style="list-style-type: none"> 9. Brand Canada through scholarships for international undergraduate students. 10. Regroup grants and scholarships available to international graduate students and post – doctoral fellows under one label/brand, with a focus on priority areas aligned with Canada's innovation and prosperity agenda. 11. Develop comprehensive and multifaceted bilateral agreements with priority countries that focus on all aspects of graduate education and research, supported by appropriate levels of funding.
Infrastructure and support	<ol style="list-style-type: none"> 12. Improve education visa processing to provide consistent and timely processing of high-quality candidates. 13. Expand and facilitate comprehensive training for

staff at Canadian embassies and offices abroad on Canada's diverse education offerings and study pathways. Training opportunities should also be available for stakeholders to gain a deeper understanding of both the programs and cultural support required by international students.

14. Support the expansion and promotion of the existing Canadian Experience Class program to contribute to Canada's skilled immigrant and labour market needs.

Source: "International Education. A Key Driver of Canada's Future Prosperity". Foreign Affairs and International Trade Canada, 2012.

The Lisbon Recognition Convention

The Convention on the Recognition of Qualifications concerning Higher Education in the European Region is a joint convention between the Council of Europe and the UNESCO. The idea came first by the Secretary General of the Council of Europe in 1992 due their approach in working in HE and the increase of member countries willing to participate on the educational and cultural activities. It is important to mention that there are some other conventions in the European Region that already covered the recognition of studies in the European HE System but they were outdated and come in a different approach. The HE system has evolved in a way were all the study programs are more diverse; a lot of students choose non-universities institutions for vocational and professional courses, which in a way are shorter than the normal degree courses. The Convention serves any institution within a national system without differentiation on the institution being publicly or privately operated, or if their offers short or long term studies or any other difference; the main purpose of the convention is to assure the quality of teaching and the recognition of the qualifications along the European Union.

In another way to say it, one of the reasons that encourage the creation of the Lisbon Convention was the fact that student and academic mobility has increased in a fast pace within the years; past conventions covered the recognition of the study periods outside the home countries in subjects such as modern languages and other common studies at the time; in contrast, other conventions try to cover the short study periods regardless of the subject. Anyway, it became important to bring the texts up to date due the vast increase in student and academic mobility. The Lisbon Convention was intended for countries that are part of the European Region; but countries as Australia, Canada and the United States are part of the Convention too; by 2010 almost 53 countries has signed but only 50 countries has ratified the Convention. It is important to notice that the treaty was adopted on April 1997 while being effective on February 1999. Since then, a lot of meetings have been held in different

cities around the European Union to analyze the progress of the Convention.

The Convention includes some definitions as access, admission, recognition authority, qualification and assessment, being the last two of greater importance on the treaty. Talking about assessment may refer to two things in the treaty: the assessment of institutions or programs, and the assessment of individual qualifications; in both cases the purpose of the word is to describe the process where it is determine if an institution, or program, or individual qualification from one party meet the requirements of higher education institutions in other party. In the other hand, the term qualification may refer to two types of qualifications: higher education qualifications and qualifications giving access to higher education.

A qualification is any document that supports the successful completion of a program being of two types: a higher education program of any type or an education program that qualifies the holder to access higher education. In terms of the convention, the terms periods of study and credits are not considered part of the definition of qualifications due that both terms imply smaller or larger parts of a program instead of referring to the complete program itself. The term qualification has a lot of meaning that depends of the country; each country gives different names considering the type of program. To make the complete analysis of if a qualification is worth it in a different party than the issuing party, the issuing party shall provide the complete information related to the duration and the requirements for completing any specific study program.

Some of the most important articles of the convention are explained in the paragraphs below. The Convention guarantees a fair and adequate assessment in a country for any qualifications issued in a different country. This assessment should be made on a framework of expertise and transparency that covers the procedures and criteria of the evaluation. This process should be made in a reasonable time and cost. It is important to highlight that a fair access to assessment doesn't imply unlimited access; in that sense, once a party have assessed a qualification, without regard of being recognized or not, the party has the right to refuse further analysis unless the applicant provide more remarkable information about the qualification.

All the assessments should be made on a non-discriminatory basis. The background of the applicant should not be taken in consideration for the final decision made by the competent recognition body. The convention applies to all the persons that obtained a qualification within the boundaries of one or more parties of the convention.

For instance, the convention establishes that the responsibility of recognizing a qualification lies in the competent body and not in the applicant. The competent authority should show the reasons why a

qualification is not going to be recognized in terms of the requirements and the criteria. All the assessment procedures should be provided to the applicant and should not be differences between the HE institutions within the same party.

The applicant has the responsibility to provide all the necessary information required to process the assessment of the qualifications. In the same way the HE institutions have the responsibility to provide relevant information related to the qualifications of their former students within reasonable limits.

In terms of the convention, the qualifications of a party shall be recognized by any other party as similar to the ones obtained within its education system unless substantial differences are found between both education systems. This analysis should be made in a proper manner and should exhaust all the resources available to determine if there is a substantial difference or not.

It is important to underline that the Convention takes important consideration in the periods of studies outside the home country in base of the student mobility. Normally, these kinds of programs are encouraged by bilateral agreements between two or more HE institutions; these agreements might boost student mobility and at the same time can help to a faster and easier recognition of the qualifications obtained in the program.

Recognition of a qualification issued in a HE institution in a different country shall be considered with respect to one or more of the stated purposes:

- Concerns the right to look for any further higher education studies in any of the Parties. Once a student has obtained the recognition of its qualifications, the student has the right to undergo with all the process to access a doctoral degree in the same conditions that other national applicant.
- Concerns the right to use an academic title; the Convention let any of the parties to apply their national laws in this matter. Once the qualifications have been granted the holder has the right to use its foreign title; alternatively the party may grant the right to the holder to use the equivalent title of the national counterparts.
- Finally, recognition of the qualification may give the right to the holder to access the local labour market.

The Convention takes in consideration a problem that has growth in Europe in recent years: the refugees. The convention asks the party to show flexibility on the recognition of qualification when the applicant is someone that has a refugee or displaced status; mainly because this

group of persons are not capable of proving their qualifications for reasons that led to its status in first place. Specific procedures shall be developed.

For the convention to take the required effect is necessary for the parties to provide all information related to their higher education systems. This obligation includes providing information on: the institutions of higher education and the study programs offered at these institutions. As mentioned above, the convention takes into account the fact that the programs are more diverse than before, making it more difficult to obtain recognition of qualifications if the parties do not cooperate. The convention also take into consideration that there are countries that already have a formal recognition system while others do not, anyways what matters most is for the information about the qualifications to be available to the competent recognition body.

In the same way the Convention encourage the parties to establish national information centres. These bodies are responsible to keeping the information framework about the recognition of foreign qualifications up to date as well as to provide advice to individuals and institutions about these qualifications. The national information centres are part of the European Network of Information Centres in the European Region (ENIC) which is the network that handles all the information about the recognition of qualifications through all the parties of the Convention.

The Diploma Supplement is a tool developed by the European Commission, the Council of Europe and UNESCO to facilitate the recognition of qualifications. Usually, this document presents relevant information of the program of the study as well as the general requirements and the time spent in the program. The countries shall promote the issuing of the Diploma Supplement by their HE institutions, in aims to provide their students a useful tool for the recognition of its qualifications.

ERASMUS Program

One of the biggest initiatives towards HE in the European Union is the ERASMUS Program (European Community Action Scheme for the Mobility of University Students). In 2012 the program celebrated its 25th anniversary with nearly 3 million students having participated to date; and nearly 300000 teachers and other staff have benefited from the program. Erasmus is a student exchange program that promotes the mobility of students, teachers and faculty staff through Europe. Between the benefits we can named: student placements in enterprises, university staff teaching and training and funds for co-operation projects between HE institutions.

Since 2007, ERASMUS became part of the Lifelong Learning Program; which is a European Commission program that stimulates learning experiences and help to develop the education and training sector

with actions such as exchanges, study visits and networking activities. The program divides its efforts in four sub-programs that are in charge of different levels of education:

- Comenius for schools
- Erasmus for higher education
- Leonardo da Vinci for vocational education and training
- Grundtvig for adult education.

Going back to Erasmus, the program has an annual budget that surpass 450 million euro. At the time, 33 countries are part of the initiative with more than 4000 higher education institutions across Europe taking part of the program and with more institutions willing to join.

The European Commission is in charge of the program implementation in the HE institutions; the commission manages the entire different activities which aim is to allow Erasmus to become a pillar in the modernization of the HE in Europe. The sum of these activities stimulates the development of the Bologna Process.

It is important to highlight that the program purpose is to encourage the co-operation between HE institutions to drive innovation in the different disciplinary areas encompassing HE. Such activities include: intensive programs; multilateral projects, academic networks and preparatory visits.

The Bologna Process

The Bologna Process is one of the pillars of the process that Europe is going through in HE. It all started in 1998 with four ministers of education that shared the view for a better Higher Education that the one in the time. In that sense, in 1999, 30 countries decided to engage voluntarily in a process to create the European Higher Education Area (EHEA), whit the signing of the Bologna Declaration. At the present time the Bologna Process includes 47 participating countries across Europe. In Table 2 it is possible to see a timeline of the whole process.

Table 2: The Bologna Process		
Year	Meetings	Achievements
1998	The Sorbonne Declaration	Signed by four countries, namely France, Germany, United Kingdom and Italy. The Vision of the EHEA took place including the promotion of academic mobility and of qualifications.
1999	Bologna Declaration	Signed by 29-30 countries who expressed their willingness to establish the EHEA. It was conceived as a voluntary harmonisation process.
2001	Prague Communiqué	33 countries met for this ministerial

		conference with the purpose of expanding the objectives; in order to develop quality assurance and national qualification frameworks.
2003	Berlin Communiqué	Now with 40 members, its purpose was to link the EHEA with the European Research Area. Also the Follow-up groups by country, the Board and the Bologna Secretariat were created.
2005	Bergen Communiqué	This meeting underlined the importance of partnerships between all sectors of HE system. Also the will to provide access and attractiveness to other parts of the worlds was stressed.
2007	London Communiqué	46 Participants. It was focused on evaluating the progress achieved by that time. It also served to set priorities for the next meeting in 2009.
2009	Leuven/Louvain-la-Neuve Communiqué	The main working areas for the next decade were set. This areas show a more in-depth approach of the reforms, ensuring the completion of the Bologna Process implementation.
2010	Budapest-Vienna Ministerial Conference	It was the Anniversary Conference celebrating a decade of the Bologna Process. It also took place the official launching of the EHEA with 47 members.
2012	Bucharest Ministerial Conference	Focus on three main goals: to provide quality HE to more students, to equip students with employable skills, and to increase student mobility.

Source: “Bologna Process”. European Higher Education Area, 2013.

Through all these meetings the members of the EHEA work together in order to achieve goals that strengthen the education system of Europe. It is an example of what the international cooperation can do in terms of HE. The European Community has a lot of things to work on but the process is taking great steps to achieve the objectives of the Bologna Process.

Theoretical Framework

Internationalization

According to the Advisory Panel (2012, p. viii) and the American Council of Education (2012, p. 3) internationalization refers to the efforts of institutions of “bringing an international dimension into teaching, learning,

research and service activities;” Jane Knight (2008, p. 21), as well, proposed that internationalization is “the process of integrating an international, intercultural, and global dimension into the purpose, functions and delivery of higher education at the institutional and national levels” first to improve the quality and relevance of university functions and secondly, as a tool for international expansion. The American Council of Education also point out that internationalization is a “process that seeks to align and integrate international policies, programs, and initiatives, and positions colleges and universities as more globally oriented and internationally connected”; building international and intercultural competence among students, faculty, and staff

Transnational Education

Although there has been a while since that Transnational Education has become a widely concept in terms of internationalization it has been carried out with some confusion therefore it is more suitable to use the definition provided by the UNESCO and the Council of Europe in the **Code of Good Practice in the Provision of Transnational Education** adopted in Lisbon in 2001 that stated that transnational education is:

All types of HE study programs, or sets of courses of study, or educational services (including those of distance education) in which the learners are located in a country different from the one where the awarding institution is based. Such programs may belong to the education system of a State different from the State in which the program operates, or may operate independently of any national education system.

In that instance, transnational education encloses mostly all the programs that are offered in a different country without the requirement for students to be physically there.

Academic Mobility

Academic Mobility is a very broad concept and is not related to transnational education. Academic mobility is defined as the phenomena of students crossing national borders for the purpose of study and implementation of activities during a specific period of time and then return to the country of residence; academic mobility may be realized within certain institutional programs or independently. Being mobile means changing environment which offer multiple opportunities to the student to benefit from different cultures; it includes the chance to have opposition and confrontation with differences, requiring a wide range of individual, adaptive abilities and perception of new competencies. It's considered an experience full of learning that promote personal development. A Kazakh researcher named Bazhenova (2013, p. 485) made a deep research on the definition of the term academic mobility and points out that:

Academic mobility of students is a multivector factor, promoting the exchange of scientific and cultural potential, technology and training methods between the representatives of different countries that furthers socio-economic development, the development of civil society and democratic traditions and values. Increased availability of information, knowledge, new technologies, means of communication and telecommunication dictate requirements to the education of a new human: capable to independently acquire knowledge, mobile, creative workers with a high level of responsibility, both professional and universal, with the high personal culture, balanced professional, moral, ethical, aesthetic components, with new scientific knowledge, who have mastered a new modern science and new scientific world view.

Over the years many universities have taken part of a process call Internationalization. Universities gave different types of importance to internationalization; in fact all the progress made in this field is based solely in the concept the universities have about internationalization, which is very broad in terms of the approach that the university wants to take. Internationalization has moved from a reactive to a pro-active issue, and its focus, scope and content has evolved over the years. Universities have become very competitive when it comes to marketing their education quality; before, the main approach was just focused in cooperation which included exchanges and partnerships; now according to De Wit (2011) internationalization strategies can be filtered “by the specific internal context of a university, by the type of university and how universities are embedded nationally”.

Sebastian (2004) made a deep analysis about the internationalization process on the universities and identify three main objectives:

- a) The promotion of transnational education by expanding educational supply in supranational spaces which implies and englobes the education beyond borders and the transformation of universities in campuses with the capacity to receive students from all over the world;
- b) The development of new learning methodologies arising from the virtualization of the HE system, which englobes the process of change that some models of universities have gone through caused by the use of digital and technological tools available to students that promote new ways of transmitting information; and
- c) The compatibility and comparability in an international level of national HE systems which is expressed as the convergence of

these systems which is the ultimate objective of the internationalization process in the pursuit of a global education system.

These objectives are part of the process that the university obtain through internationalization; also there are some other goals that can be accomplished as: **Improve the quality, pertinence and relevance of teaching and research**; taking in consideration that one of the methods to improve education is to increase the teaching capacities and abilities of the current faculty members; this can be achieved through internationalization that make possible the exchange and dissemination of effective teaching techniques. **Articulate the institution in the global context of HE**; achieving this goal means simply the adaptation of universities in a global environment where everything is interconnected; although there are some progresses in universities that already have achieve a degree of internationalization, there is a lot more to do in order to get the most of this process of change. **Open new opportunities for international promotion and creation of academic international networks**; as soon as more universities continue to embrace internationalization as an active policy in their strategic planning for education more powerful academic networks will arise; networks that will last for a long time. **Consolidate values such as cooperation and solidarity in the institutional culture** and in that way set the basis for more universities to choose cooperation models that contribute to the formation of a global university; it means different universities located in different parts of the world with one single HE system. **Expand employment opportunities of graduates**; this means that due the establishment of international links, students from everywhere have the opportunity of seek employment in more places around the world and not only in their home countries.

These goals are within the parameters of the internationalization process; when it comes to international cooperation in which the concept is somewhat broader than internationalization, the objectives are more complex in reference to the cooperation model chosen.

Internationalization is a process that can be expressed at universities in two different dimensions. An internal dimension, which is a cultural change in the institution that contributes to the improvement of the quality and relevance of the university policies in teaching and research; and an external dimension related with the international promotion of the teaching and research capacities of the university allowing to increase the options and the promotion of research in different academic fields using a vast resource of techniques to achieve greater innovation.

This double dimension of internationalization of universities corresponds to two basic strategies outline bellow. The internal vision of the university requires a strategy that encourages deep cultural changes in

the different faculty departments and positions. The external vision of the university requires a strategy based on the organization of the study program and the dissemination of the offer and institutional capacities in the different research areas. Both strategies have their main operational tool in the international cooperation, that after all is interrelated with the internationalization process. In the first dimension, as a mean to facilitate and speed up the process of structural change and, in the second one, as a mean to expand the international promotion based on agreements and partnerships between different higher education institutions.

International Academic Cooperation

As mentioned before the scope of the international cooperation is broad, thus is necessary to narrow the definition in relation with our research topic, in this case englobes all the related with international academic cooperation and is expressed by Sebastian(2004) in the following context:

Set of activities performed between or by HE institutions that, through multiples modalities and programs, involve a partnership and collaboration in the fields of management and institutional policy, teaching, research, extension and connection with the strengthening and international promotion objectives, the improvement of the quality of teaching, the increase and transfer of scientific and technological knowledge, and the contribution to university development cooperation.

This definition includes two dimensions: university “sensu stricto” cooperation (also known as interuniversity cooperation) and university development cooperation which aim is to promote development of emerging countries. Table 3 explores some of the characteristic of these types of cooperation:

Table 3: Characteristics of International Academic Cooperation		
	UNIVERSITY “SENSU STRICTO” COOPERATION	UNIVERSITY DEVELOPMENT COOPERATION
Fundamentals /Objectives	<ul style="list-style-type: none"> • Complementation of capacities • Symmetry • Bidirectional • Academic and scientific objectives 	<ul style="list-style-type: none"> • Asymmetry and unidirectional • Creation of capacities • Institutional development • Contribution to human, social and productive development
Actors	<ul style="list-style-type: none"> • Universities and R&D centers • Peer to peer 	<ul style="list-style-type: none"> • Universities and R&D centers • Institutions and social,

	cooperation	productive agents, etc.
Modalities	<ul style="list-style-type: none"> • Faculty and student mobility • Internships • Collaborative teaching • Joint research • Workshops / conferences • Partnerships / networks 	<ul style="list-style-type: none"> • Formation of Human Resources • Research on critical problems related to development • Transfer of knowledge and technology for development • Advice and technical assistance
Results /Impact	<ul style="list-style-type: none"> • Improve on the quality of teaching and research. • Obtainment of scientific results • International visibility • Internationalization 	<ul style="list-style-type: none"> • Institutional strengthening of universities and HE • Knowledge and applicable results to development • Improve in life conditions • Internationalization

Source: “Enfoque de la Cooperación Universitaria al Desarrollo. Oportunidades y limitaciones” by Jesús Sebastián. Universidad de Cantabria, 2010.

Once reviewed some of the characteristics of international academic cooperation there is the risk of finding a lot of similarities between the two dimensions of cooperation explained in table 3; anyways each type of cooperation has a differentiated role depending on the approach that the university is taking. It is important to highlight that the interuniversity cooperation is a model where two universities of similar characteristics work together in order to obtain a mutual benefit mainly through student and faculty mobility and the exchange of information on research conducted by both universities which eventually will improve the quality of the cathedra. Instead the development cooperation is a model in which a university that is located in a developed country with enough resources for research and innovation focuses its efforts in helping universities and institutes from a emerging country; so in that way the “developed university” will transmit knowledge and resources to strengthen the university less developed with the solely purpose of contribute with the development of the emerging country and the improvement of the life quality.

There is something else that needs to be added to these dimensions of academic cooperation and is related with the teaching and research offer of the universities. Sebastian (2004) explained as shown in the table 4 some characteristics related to this important part of the internationalization:

Table 4: Characteristics of the internationalization of the university offer	
	International extension of the teaching and research offer of the universities
Fundamentals /objectives	<ul style="list-style-type: none"> • Internationalization strategies • Attracting students • Promotion of the teaching offer • Promotion of research and services capacities. • Attracting resources • International presence
Actors	<ul style="list-style-type: none"> • Individual institutions • Partnerships and interuniversity consortia
Modalities	<ul style="list-style-type: none"> • Transnational education • Programs: on campus, blended learning, distance learning, e-learning. • Research and services contracts. • Scholarships and financial aid for international students
Results / impact	<ul style="list-style-type: none"> • Increase in student enrollment • Financial Resources • Increase in visibility and promotion • Internationalization

Source: "Cooperación e internacionalización de las universidades" by Jesús Sebastián, 2004.

The table 4 displays the impact that comes with the extension of the teaching offer in a international level. As explains in the table the process of internationalization may increase student enrollment as well as attract financial resources for research and development; the university also has the opportunity to offer its programs in an international level due the promotion that the international arena represents. Finally these impacts are intended to help the universities to build the basis for internationalization which is mainly the reason to adopt this dimension.

In that sense there are three dimensions of internationalization exposed by Sebastian (2004). In the table 5 is a summary of the dimension and the role adopted by universities to perform in the right way on an international environment:

Table 5: Types of international activity and the university role	
Type of activity	University role
Interuniversity cooperation	Actor of the cooperation
Development cooperation	Agent of the cooperation
Extension of international offer	Educational Services operator

Source: "Cooperación e internacionalización de las universidades" by Jesús Sebastián, 2004.

Additionally, it is necessary to mention that the model that was used previously was a version of development cooperation that remained in concepts such as "development aid" and "benefactor countries" but that aspect has changed since the universities are not currently seeking an institutional relationship in which only one party get the benefits. Nowadays, not only universities but many institutions around the world are turning into a win-win relationship in which both parties obtain mutual benefits. The purpose of adopting internationalization is to seek a complete integration and commitment; therefore the first step should be the establishment of a strong relationship in which cooperation and mutual collaboration are the cornerstones of the change process, leaving aside the idea of competition. Universities are faced with the need to cooperate to be competitive.

In a deeper analysis the interuniversity cooperation included four areas that are exhibit on table 6. There are different cooperation activities that can be performed if the university adopt this model for its internationalization process:

Table 6: Areas and modalities of interuniversity cooperation	
Areas of academic cooperation	Cooperation activites
Policies, organization and management of universities	<ul style="list-style-type: none"> • Information exchange, forum • Benchmarking workshops • Training • Counseling
Education	<ul style="list-style-type: none"> • Faculty <ul style="list-style-type: none"> • Teaching, specialization, mobility • Teaching offer <ul style="list-style-type: none"> • Expansion of the offer • Curriculum update • Teaching methodology • Collaborative post-university programs • Students Mobility
Research	<ul style="list-style-type: none"> • Teaching, specialization, mobility of researchers • Information exchange, conferences • International R&D Centers • Infrastructure improvement, research equipment • R&D activities: projects, networks, contracts • Promotion activities and transfer technologies
Extension	<ul style="list-style-type: none"> • Exchange and cultural promotion • Institutional networks • Institutional ties

Source: "Cooperación e internacionalización de las universidades" by Jesús Sebastián, 2004.

Management models of Cooperation Activities

There are two models for universities to managed an interunitiversity cooperation: the spontaneous and the integrated model. The table 7 exposed some of the characteristics of these models according to the approach that universitites take in relation to international academic cooperation.

Table 7: Characteristics of the academic cooperation models		
Cooperation model	Spontaneous	Integrated
View of the cooperation	External elemental	Intrinsic and strategic element
Origin of cooperation	Individual / spontaneous Offer cooperation	Individual / institutional Cooperation plan
Management of cooperation	Pasive / handler	Active / enabler
Funding for cooperation	External	Mixed
Outcome of cooperation	Ephemeral	Stable / sustainable
Institutional impact	Little	Institutional strengthening and development

Source: "Cooperación e internacionalización de las universidades" by Jesús Sebastián, 2004.

As illustrated in table 7, the spontaneous cooperation model is the one that represent less impact to the institutions, due that is a passive management model with no incidence on the structure and the practices of the universities; in this type universities expect to be reached by other institution and most of the time the resources invested are external therefore the results generated are not predictable and the beneficiaries are not so many.

On the other hand, the integrated cooperation model is characterized because the university considers the cooperation as something intrinsic and strategic of the institution; a model that is design to ensure the future development and growth of the university. Also, in this model the university takes an active role as well as planning the development of programs and studies modalities to help achieve an effective and consistent cooperation in relation with the objectives of the university. Financing can be obtained from both internal and external sources that have been carefully selected and are in accordance with the goals of the university. Many members of these institutions get benefits from this type of approach; the beneficiaries consist from students, faculty members and the university itself due the strengthening and institutional development generated by stable and sustainable relationships.

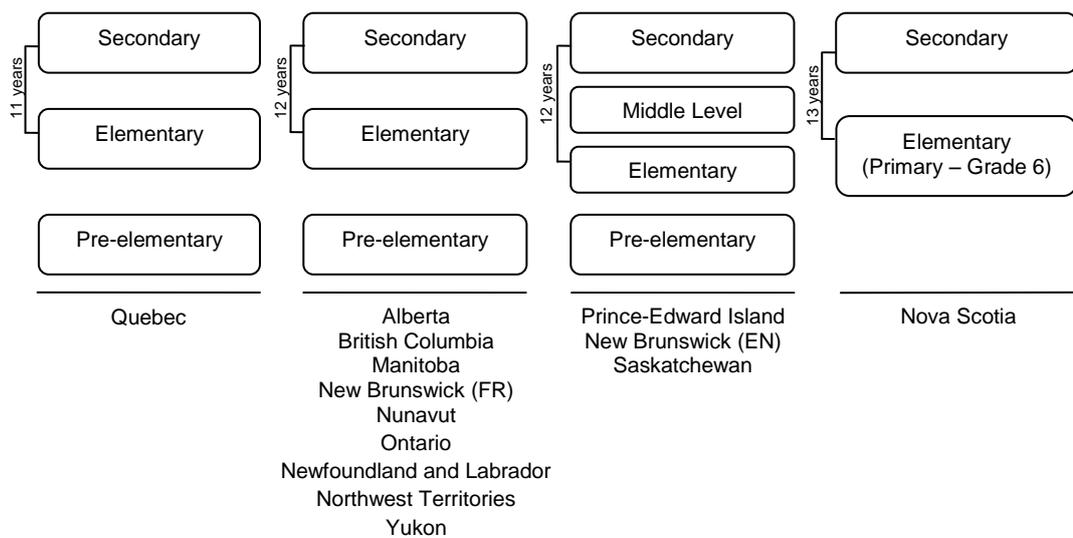
CHAPTER 2

EDUCATION SYSTEMS

Canada's Education System

Canada's education system is divided into elementary, secondary and post-secondary education. Education in Canada is compulsory until the age of 15, 16, or 18, depending on the province or territory. Normally, Canadians have to go from kindergarten to grade 12 (K-12) to obtain a secondary school diploma which is provided universally and free in all the jurisdictions. Anyways there are some differences in the system according to the province; these are shown in the following graphic:

Figure 2: Canada's K-12 Education Systems



Note

In all jurisdictions, a secondary school diploma is issued upon successful completion of the secondary school curriculum

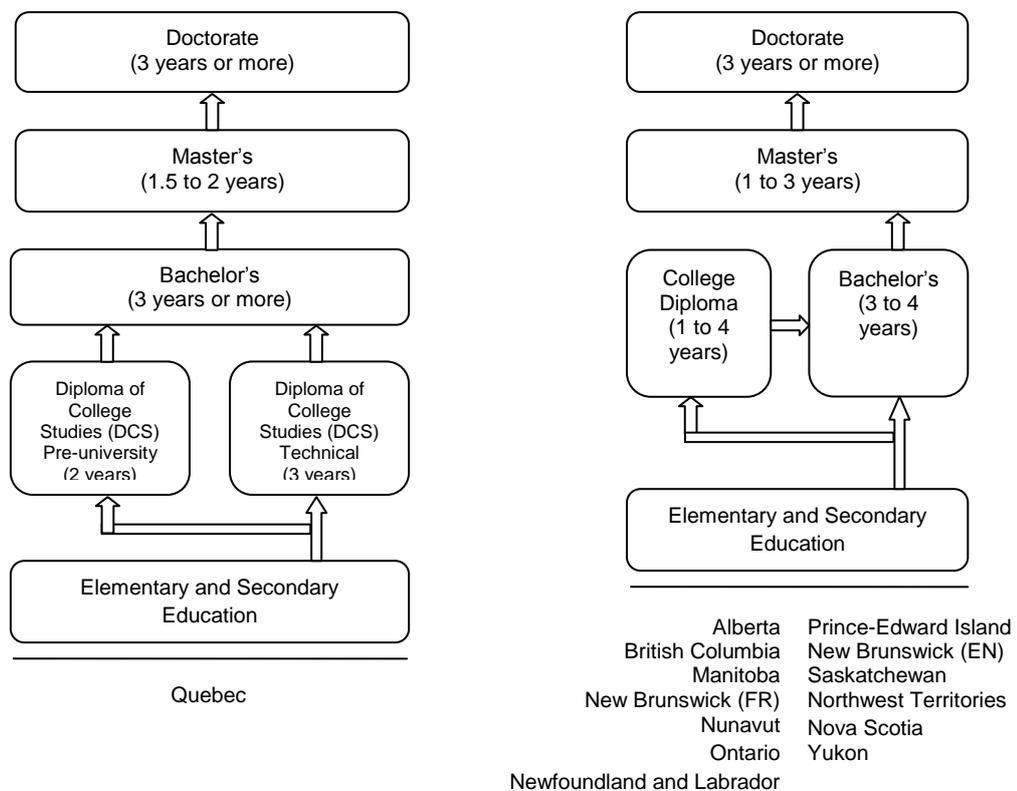
Source: “Education in Canada’s Provinces and Territories” by Canadian Information Centre for International Credentials (CICIC), 2010

As shown in figure 2, Canada primary and secondary education systems are totally autonomic and depend on the policy plan developed by the ministry of education of each province and territory. It’s a system that is constantly evolving and change as the authorities identify new priorities and developed strategies to respond to the challenges of an evolving

world that goes in an accelerated pace due to the advances in technology and communication.

Post-secondary education in Canada includes academic, vocational, technical, and continuing professional education offered all across the country primarily by universities, colleges and institutes which are the ones recognized to do so. In the Canadian constitution is established that the provincial governments are the ones with the responsibility of all the levels of education, without any interference from the federal government in that matter. In the next graphic is the design of the post-secondary education:

Figure 3: Canada's Post-secondary Education System



Notes

(1) Selected institutions in Alberta, British Columbia, Manitoba, Ontario and Prince Edward Island offer applied degrees. (2) The Northwest Territories and Nunavut have no degree-granting institutions. Some degrees are available through partnerships. (3) All colleges and universities offer certificate programs of variable length. (4) British Columbia's colleges also offer associate degrees.

Source: "Education in Canada's Provinces and Territories" by CICIC, 2010

As shown in figure 3, most of the provinces and territories use similar approaches in their post-secondary education systems while Quebec is the only province that has a different structure about its HE system. Every single province and territory has its own minister of education that is in charge of developing the set of rules for the different levels of education that are enforced in the province.

The College System

Canadian Colleges (see table 8) offer programs with diverse options in technical and professional fields while working very closely with business and industry to ensure relevance. According to Education in Canada (2013) there are over 8000 college programs offering credentials such as certificates, diplomas and academic and applied degrees. In most of the cases the duration of the program goes from few months up to 4 years of studies.

Table 8: Community Colleges by Province in Canada	
Alberta	
1. Alberta College of Art & Design	10. NAIT (Northern Alberta Institute of Technology)
2. Bow Valley College	11. NorQuest College
3. Grande Prairie Regional College	12. Northern Lakes College
4. Keyano College	13. Olds College
5. Lakeland College	14. Portage Collage
6. Lethbridge College	15. Red Deer College
7. Maskwachees Cultural College	16. Robertson College
8. Medicine Hat College	17. SAIT - Southern Alberta Institute of Technology
9. Mount Royal University	18. Yellowhead Tribal College
British Columbia	
1. British Columbia Institute of Technology	9. Langara College
2. Camosun College	10. Nicola Valley Institute of Technology
3. College of New Caledonia	11. North Island College
4. College of the Rockies	12. Northern Lights College
5. Columbia College	13. Northwest Community College
6. Coquitlam College	14. Okanagan College
7. Douglas College	15. Selkirk College
8. Justice Institute of British Columbia	16. Vancouver Community College

Manitoba	
1. Assiniboine Community College	3. Robertson College
2. Red River College of Applied Arts, Science, and Technology	4. University College of the North
	5. Winnipeg Technical College
New Brunswick	
1. Collège communautaire du Nouveau-Brunswick	2. New Brunswick Community College
Newfoundland and Labrador	
1. College of the North Atlantic	
Northwest Territories	
1. Aurora College	
Nova Scotia	
1. Nova Scotia Community College	
Nunavut	
1. Nunavut Arctic College	
Ontario	
1. Algonquin College	14. La Cité collégiale
2. Cambrian College	15. Lambton College of Applied Arts and Technology
3. Canadore College	16. Loyalist College of Applied Arts and Technology
4. Centennial College	17. Mohawk College of Applied Arts and Technology
5. Collège Boréal	18. Niagara College of Applied Arts and Technology
6. Conestoga College Institute of Technology and Advanced Learning	19. Northern College of Applied Arts and Technology
7. Confederation College	20. Sault College of Applied Arts and Technology
8. Durham College of Applied Arts and Technology	21. Seneca College
9. Fanshawe College of Applied Arts and Technology	22. Sheridan College
10. Fleming College	23. St. Clair College of Applied Arts and Technology
11. George Brown College	
12. Georgian College	

13. Humber College Institute of Technology and Advanced Learning	24. St. Lawrence College
Prince Edward Island	
1. Holland College	
Quebec	
1. Cégep André-Laurendeau	25. Cégep du Vieux Montréal
2. Cégep Beauce-Appalaches	26. Cégep Gérald-Godin
3. Cégep de Baie-Comeau	27. Cégep Garneau
4. Cégep de Chicoutimi	28. Cégep Heritage College
5. Cégep de Drummondville	29. Cégep Limoilou
6. Cégep de Granby Haute-Yamaska	30. Cégep régional de Lanaudière
7. Cégep de l'Abitibi-Témiscamingue	31. Cégep Saint-Jean-sur-Richelieu
8. Cégep de l'Outaouais	32. Cégep Vanier College
9. Cégep de Lévis-Lauzon	33. Champlain Regional College
10. Cégep de la Gaspésie et des Îles	34. Collège Édouard-Montpetit
11. Cégep de La Pocatière	35. Collège Ahuntsic
12. Cégep de Matane	36. Collège de Bois-de-Boulogne
13. Cégep de Rimouski	37. Collège de Maisonneuve
14. Cégep de Rivière-du-Loup	38. Collège de Rosemont
15. Cégep de Saint-Hyacinthe	39. Collège de Valleyfield
16. Cégep de Saint-Jérôme	40. Collège Lionel-Groulx
17. Cégep de Saint-Laurent	41. Collège Montmorency
18. Cégep de Sainte-Foy	42. Collège Shawinigan
19. Cégep de Sept-Îles	43. Dawson College
20. Cégep de Sherbrooke	44. John Abbott College
21. Cégep de Sorel-Tracy	45. Cégep de Jonquière
22. Cégep de Thetford	46. Cégep de St-Félicien
23. Cégep de Trois-Rivières	47. Collège d'Alma

24. Cégep de Victoriaville	48. Cégep de Marie-Victorin
Saskatchewan	
1. Carlton Trail Regional College	7. Parkland College
2. Cumberland Regional College	8. Saskatchewan Indian Institute of Technologies
3. Great Plains College	9. Saskatchewan Institute of Applied Science and Technology (SIAST)
4. Lakeland College	10. Southeast Regional College
5. North West Regional College	
6. Northlands College	
Yukon	
1. Yukon College	

Source: "2013 KI-ES-KI HANDBOOK" by CEA, 2013

In Quebec, prior obtaining a degree in a university, students have to take classes in the Cégep. Along with the Cégep, it is also possible to find private colleges in Quebec that receive subsidies for the provincial government (see table 9).

Table 9: Private Colleges in Quebec	
Quebec	
1. École de musique Vincent-d'Indy	13. Collège Laflèche
2. École Nationale de Cirque	14. Collège LaSalle
3. Campus Notre-Dame-de-Foy	15. Collège Marianopolis
4. Centennial College and Centennial Academy	16. Collège Merici
5. Collège André-Grasset	17. Collège O'Sullivan de Montréal
6. Collège Bart	18. Collège O'Sullivan de Québec
7. Collégial International Sainte-Anne	19. Collège préuniversitaire Nouvelles Frontières
8. Collège Ellis	20. Collège Stanislas
9. École de sténographie judiciaire du Québec	21. Conservatoire Lassalle
10. Collège International des Marcellines	22. Institut Teccart
11. Collège international Marie-de-	23. Séminaire de Sherbrooke
	24. TAV College

France	
12. Collège Jean-de-Brébeuf	

Source: “2013 KI-ES-KI HANDBOOK” by CEA, 2013

Universities

Canadian Universities (2013) covers a variety of degree options going from small liberal arts programs to larger research-intensive programs. In these institutions it is possible to begin from the bachelor studies and continue to the highest qualification. Canadian Universities are well known for their quality and innovation standards around the world. There are three consecutive levels of degrees a student can achieve:

- Bachelor’s (generally three or four years of study)
- Master’s (one or two years of study depending on the program)
- Doctoral (three years of study)

According to Education in Canada (2013), universities offer more than 10000 undergraduate and graduate degree programs which follow the Bachelor/Master/Doctorate system similar to those in the USA and Commonwealth countries.

Table 10: Universities by Province in Canada	
Alberta	
1. Athabasca University	5. The King’s University College
2. Augustana Faculty Of University of Alberta	6. University of Alberta
3. Concordia University College of Alberta	7. University of Calgary
4. Grant MacEwan University	8. University of Lethbridge
British Columbia	
1. Capilano University	8. Trinity Western University
2. Emily Carr University of Art + Design	9. University of British Columbia Okanagan
3. Kwantlen Polytechnic University	10. University of Northern British Columbia
4. Royal Roads University	11. University of the Fraser Valley
5. Simon Fraser University	12. University of Victoria
6. The University of British Columbia	13. Vancouver Island University
7. Thompson Rivers University	

Manitoba	
1. Brandon University	4. The University of Winnipeg
2. St. John's College	5. Université de Saint-Boniface
3. St. Paul's College (Affiliated with the University of Manitoba)	6. University of Manitoba
New Brunswick	
1. Mount Allison University	3. Université de Moncton
2. St. Thomas University	4. University of New Brunswick
Newfoundland and Labrador	
1. Memorial University of Newfoundland	
Nova Scotia	
1. Acadia University	6. Nova Scotia College of Art and Design University (NSCAD University)
2. Atlantic School of Theology	7. Saint Mary's University
3. Cape Breton University	8. St. Francis Xavier University
4. Dalhousie University	9. Université Sainte-Anne
5. Mount Saint Vincent University	10. University of King's College (Associated with Dalhousie University)
Ontario	
1. Algoma University	18. St. Jerome's University (Federated with the University of Waterloo)
2. Brescia University College (Affiliated with The University of Western Ontario)	19. The University of Western Ontario
3. Brock University	20. Trent University
4. Carleton University	21. Université d'Ottawa / University of Ottawa
5. Collège Universitaire Dominicain / Dominican University College	22. University of Guelph
6. Huron University College (Affiliated with The University of Western Ontario)	23. University of Ontario Institute of Technology (UOIT)
7. King's University College at The University of Western Ontario	24. University of St. Michael's College (Federated with the University of Toronto)
8. Lakehead University	25. University of Sudbury / Université of Sudbury
9. Laurentian University / Université Laurentienne	

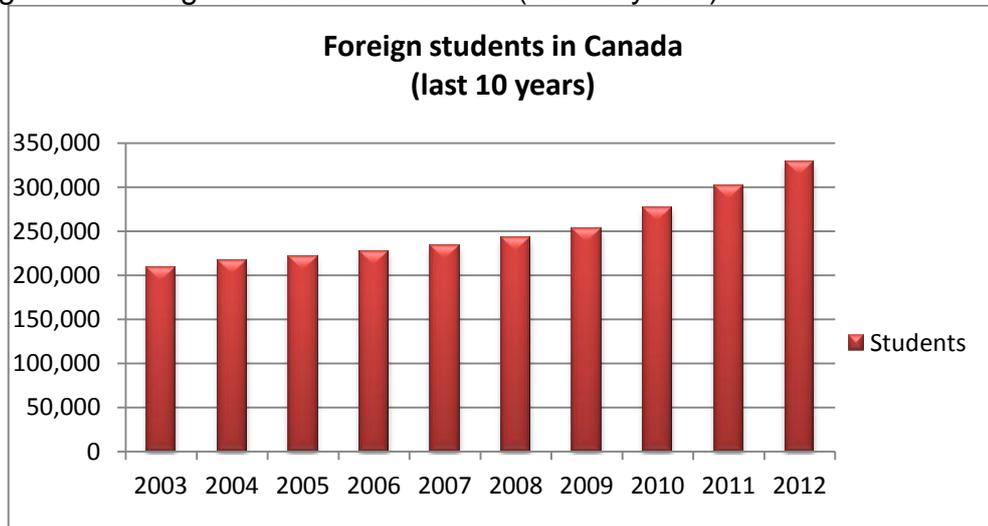
10. McMaster University	26. University of Toronto
11. Nipissing University	27. University of Trinity College (Federated with the University of Toronto)
12. OCAD University	28. University of Waterloo
13. Queen's University at Kingston	29. University of Windsor
14. Redeemer University College	30. Victoria University (Federated with the University of Toronto)
15. Royal Military College of Canada	31. Wilfrid Laurier University
16. Ryerson University	32. York University
17. Saint Paul University / Université Saint-Paul	
Prince Edward Island	
1. University of Prince Edward Island	
Quebec	
1. École de Technologie Supérieure (Université du Québec)	10. Université de Montréal
2. École nationale d'administration publique (Université du Québec)	11. Université de Sherbrooke
3. École Polytechnique de Montréal (Affiliée à l'Université de Montréal)	12. Université du Québec
4. Bishop's University	13. Université du Québec à Chicoutimi
5. Concordia University	14. Université du Québec à Montréal (UQAM)
6. HEC Montréal (Affiliée à l'Université de Montréal)	15. Université du Québec à Rimouski
7. Institut national de la recherche scientifique (Université du Québec)	16. Université du Québec à Trois-Rivières
8. McGill University	17. Université du Québec en Abitibi-Témiscamisque
9. TÉLUQ L'université. Aujourd'hui	18. Université du Québec en Outaouais
	19. Université Laval
Saskatchewan	
1. Campion College (Federated with The University of Regina)	4. St. Thomas More College (Federated with The University of Saskatchewan)
2. First Nations University of Canada	5. University of Regina
3. Luther College (Federated with The	

Source: "2013 KI-ES-KI HANDBOOK" by CEA, 2013

Canada in International Education

According to CIC (2012), foreign students with a yearly status in Canada grew from 209,190 in 2003 to over 328,672 in 2012 (see figure 4). According to the DFAIT (Department of Foreign Affairs and International Trade) international students in Canada spent \$8.0 billion that translates to estimates of almost \$4.9 billion worth of contribution of GDP. The flow of international students created 86750 jobs and generated \$455 million in government revenue in 2010.

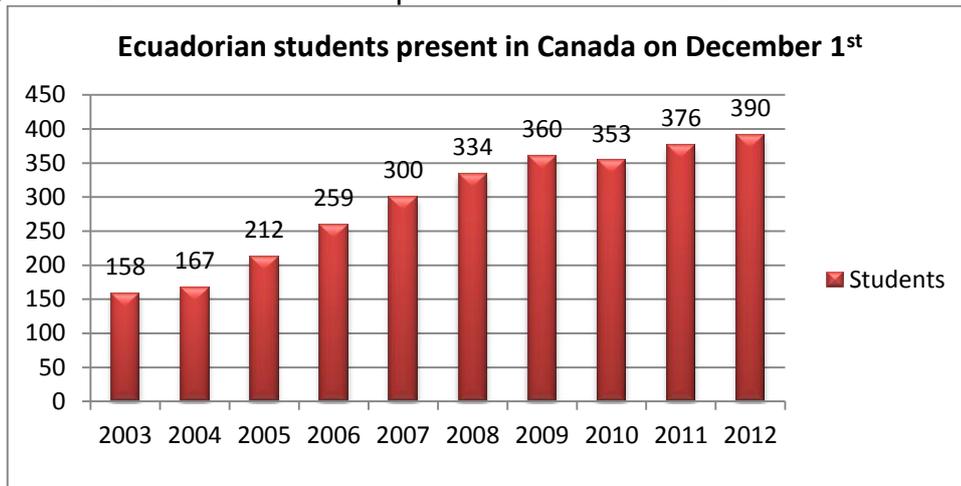
Figure 4: Foreign Students in Canada (last 10 years)



Source: "CANADA FACTS AND FIGURES" by CIC, 2012

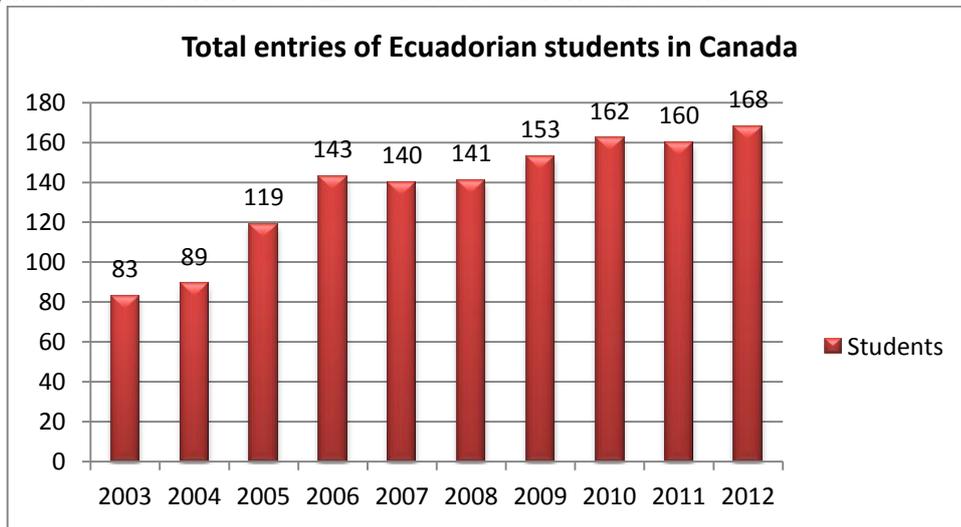
CIC (2012) also shows that Ecuador took part of the international student community in Canada. In 2012, 390 Ecuadorian students were present in Canada by December 1st (see figure 5) while 168 enter in Canada in the last year (see figure 6).

Figure 5: Ecuadorian students present in Canada on December 1st



Source: "CANADA FACTS AND FIGURES" by CIC, 2012

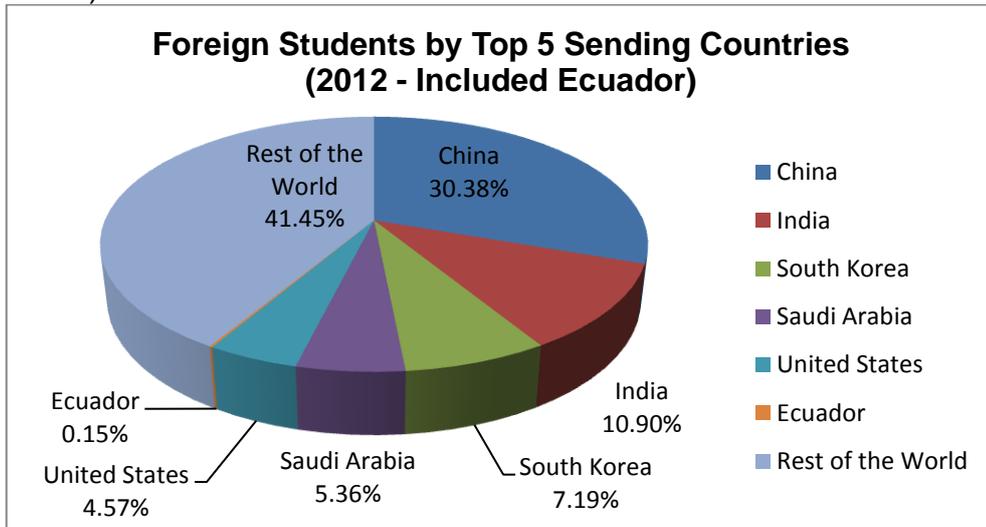
Figure 6: Total entries of Ecuadorian students in Canada



Source: "CANADA FACTS AND FIGURES" by CIC, 2012

International students in Canada come from all over the world – 183 different countries – however, the top five countries of origin – China, India, South Korea, Saudi Arabia and the United States – represent almost 60% of total international enrollment in Canada (see figure 7). Since 2003 the number of Chinese students in Canada has increased from 36,532 to 80,638 (CIC, 2012).

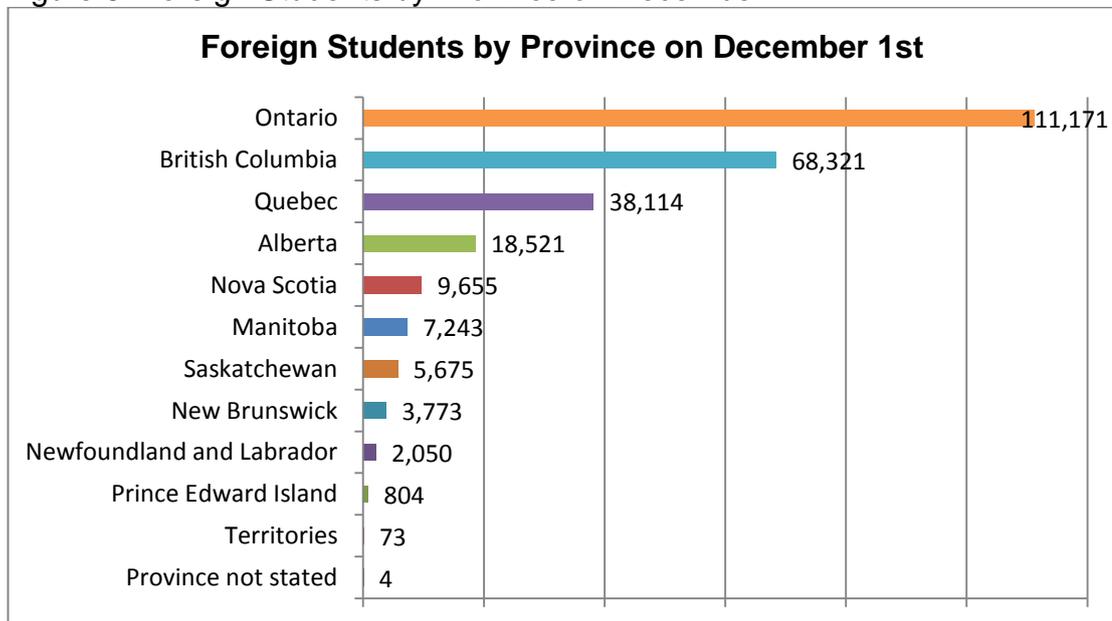
Figure 7: Foreign Students by Top 5 Sending Countries (2012 – Included Ecuador)



Source: “CANADA FACTS AND FIGURES” by CIC, 2012

Of the 265,404 international students in Canada (see figure 8), nearly 180,000 that accounts for 68% of total students are in either Ontario (42%) or British Columbia (26%). Quebec is the third most popular study destination for international students, hosting over 38,000 (14%) international students (CIC, 2012).

Figure 8: Foreign Students by Province on December 1st

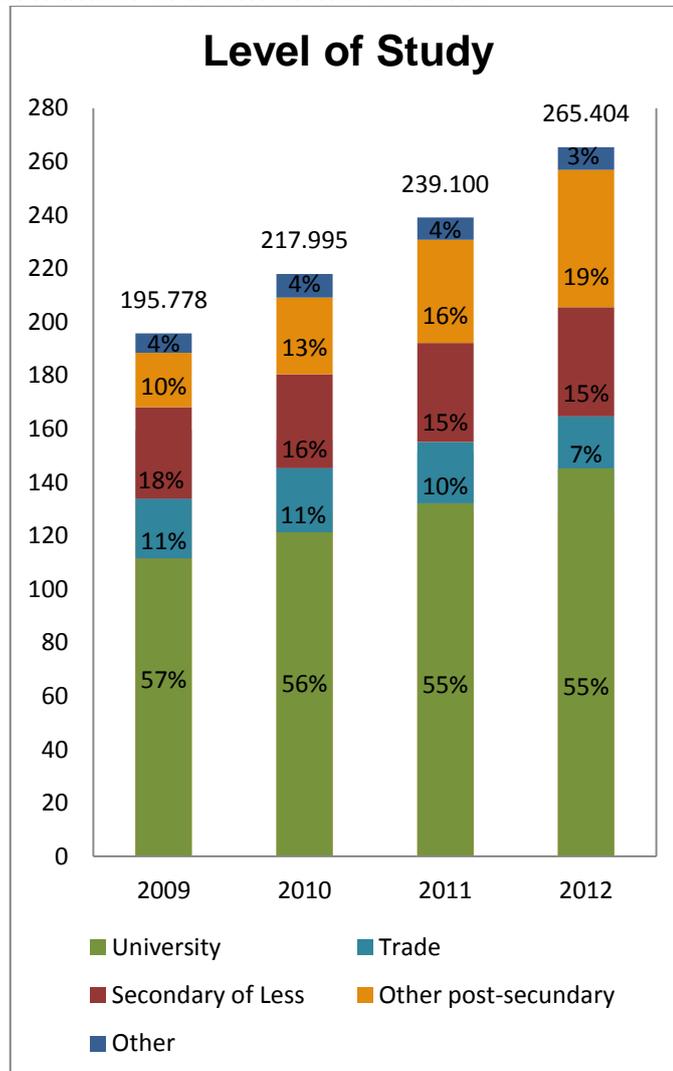


Source: “CANADA FACTS AND FIGURES” by CIC, 2012

Of the 265,404 international students that studied in Canada in 2012 (see figure 9), 55% were studying at universities. A combined 26% of international students were at trade school (technical and vocational institutions, CEPEGs and colleges) or at any other post-

secondary institution (language institutions, private institutions and university qualifying programs) in Canada. Students attending secondary schools or less made up about 15% of the international student population in Canada. The rest of international students are not classified in any of the levels of study explained above (CIC, 2012).

Figure 9: Total number of international students



Source: "CANADA FACTS AND FIGURES" by CIC, 2012

Scholarships

Canada has a good set of scholarships to offer to both Canadian and Non-Canadian students. Canadians with the desire to pursue an international experience outside of Canada can apply for a scholarship if they are:

- Students and Postdoctoral Researchers
- Faculty and Researchers

- Academic Institutions
- Professionals

In the case of students and postdoctoral researchers, the scholarship programs and the granting institutions are shown on table 11. This set of scholarship is specific for Canadian students that would like to take graduate level studies and research in Ecuador.

Table 11: Canada's International Scholarships for Canadian Students	
PROGRAM	MANAGED / FUNDED BY
Organization of American States (OAS) Fellowships Programs	Foreign Affairs, Trade and Development Canada (DFATD)
Alexander Graham Bell Canada Graduate Scholarships and NSERC Postgraduate Scholarships	Natural Sciences and Engineering Research Council of Canada
Canada Graduate Scholarships – Foreign Study Supplement	Natural Sciences and Engineering Research Council of Canada (NSERC)
Canada Graduate Scholarships – Michael Smith Foreign Study Supplement	Social Sciences and Humanities Research Council (SSHRC)
Canada Graduate Scholarships – Michael Smith Foreign Study Supplement	Canadian Institutes of Health Research (CIHR)
Canada-Latin America and the Caribbean Research Exchange Grants (LACREG)	International Development Research Centre (IDRC)
Canadian Window on International Development Awards	International Development Research Centre (IDRC)
CIFAR Global Scholars	Canadian Institute for Advanced Research (CIFAR)
Community Forestry: Trees and People — John G. Bene Fellowship	International Development Research Centre (IDRC)
IDRC Awards for International Development Journalism	International Development Research Centre (IDRC)
IDRC Doctoral Research Awards	International Development Research Centre (IDRC)
IDRC Research Awards	International Development Research Centre (IDRC)
Killam Research Fellowships	Canada Council for the Arts
Postdoctoral Fellowships Program	Natural Sciences and Engineering Research Council of Canada (NSERC)
The Bentley Cropping Systems Fellowship	International Development Research Centre (IDRC)
Trudeau Fellowships	Trudeau Foundation
Trudeau Scholarships	Trudeau Foundation

Source: "International Scholarships" by Government of Canada, 2011

Ecuadorians that want an international experience in Canada have the opportunity to obtain a scholarship as well. The Canadian Government offers the following programs to Ecuadorian students:

Table 12: Canada’s International Scholarships for Ecuadorian Students

PROGRAM	MANAGED / FUNDED BY
Emerging Leaders in the Americas Program (ELAP)	Foreign Affairs, Trade and Development Canada (DFATD)
Organization of American States (OAS) Fellowships Programs	Foreign Affairs, Trade and Development Canada (DFATD)
Banting Postdoctoral Fellowships	Government of Canada
Canada-Latin America and the Caribbean Research Exchange Grants (LACREG)	International Development Research Centre (IDRC)
Canadian Window on International Development Awards	International Development Research Centre (IDRC)
CIFAR Global Scholars	Canadian Institute for Advanced Research (CIFAR)
CIHR Fellowship	Canadian Institutes of Health Research
IDRC Doctoral Research Awards	International Development Research Centre (IDRC)
IDRC Research Awards	International Development Research Centre (IDRC)
Industrial Postgraduate Scholarships Program	Natural Sciences and Engineering Research Council of Canada (NSERC)
Industrial Research and Development Internship (IRDI) Program	Networks of Centres of Excellence of Canada
Mitacs Elevate	Mitacs
Mitacs Step	Mitacs
Mitacs-Accelerate	Mitacs
Research Associate Program	National Research Council Canada
Sauvé Scholars Program	Jeanne Sauvé Youth Foundation
Strategic Training Initiative in Health Research (STIHR)	Canadian Institutes of Health Research
The Bentley Cropping Systems Fellowship	International Development Research Centre (IDRC)
Trudeau Fellowships	Trudeau Foundation
Trudeau Scholarships	Trudeau Foundation
Vanier Canada Graduate Scholarships	Government of Canada
Visiting Fellowships in Canadian Government Laboratories Program	Natural Sciences and Engineering Research Council of Canada (NSERC)

Source: “International Scholarships” by Government of Canada, 2011

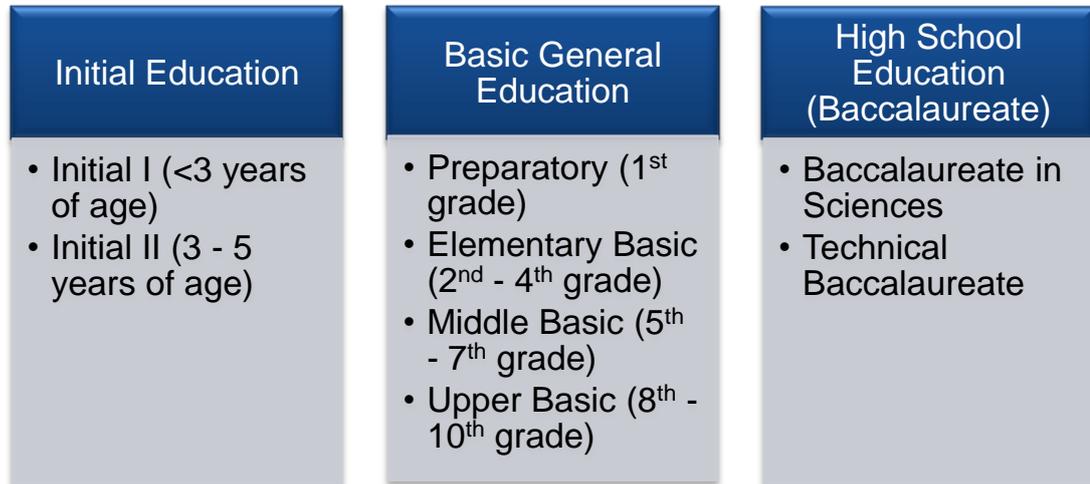
Ecuador’s Education System

Within the past couple of years, Ecuador has been in a process of change of its education system. In 2010 and 2011, the president Rafael Correa approved the new laws developed by the Asamblea Nacional about the education system in Ecuador. The new laws are: Ley Orgánica de Educación Intercultural (Organic Law of Intercultural Education) covering basic education and high school and Ley Orgánica de Educación Superior (Organic Law of Higher Education) covering universities and graduate schools.

Ecuador might be one of few countries that has two different school year calendars: Coast (May to March) and Sierra (September to June).

The school year is set for no less than 200 days and it is divided in two periods with two weeks of vacation between each period. According to this new legislation, the national education system is structure in 3 levels as shown in figure 10:

Figure 10: Ecuadorian National Education System



Source: "OFERTA EDUCATIVA" by Ministerio de Educación, 2013

Initial Education is focus on the comprehensive development of children younger than 5 years old. According to the regulation of the Law of Intercultural Education this education sector consists of two parts:

- Initial I: is not part of the school system and consist of children younger than 3 years of age; and,
- Initial II: is part of the school system and consist of children between 3 to 5 years of age.

In this level of education the role of the government is to provide the tools for the early development of the children. It is not mandatory for the children to assist to the Initial I level.

Basic General Education consists of 10 mandatory levels of education from 1st to 10th grade. This specific level is set to prepare the students for their time in High School as well as to participate in the politic and social life of the country. It is comprises by four sub levels:

- Preparatory, which corresponds to 1st grade and preferably gives education to students of 5 years of age;
- Basic Elementary, which corresponds from 2nd to 4th grade and preferably gives education to students between 6 to 8 years of age;
- Middle Basic, which corresponds from 5th to 7th grade and preferably provides education to students between 9 to 11 years of age, and,
- Upper Basic, which corresponds from 8th to 10th grade and preferably provides education to students between 12 to 14 years of age.

The curriculum for the Basic General Education is set in the following way by the Minister of Education:

Table 13: Curriculum for Basic General Education										
SUBJECTS	WEEKLY HOURS OF CLASS PER SUBJECT / YEARS OF BASIC GENERAL EDUCATION									
	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
LANGUAGE AND LITERATURE		12	12	9	9	8	8	6	6	6
MATHEMATICS		6	6	6	6	6	6	6	6	6
NATURAL AND SOCIAL ENVIRONMENT		5	5	-	-	-	-	-	-	-
NATURAL SCIENCES		-	-	4	4	4	4	6	6	6
SOCIAL SCIENCES		-	-	4	4	5	5	5	5	5
AESTHETICS EDUCATION		3	3	3	3	3	3	3	3	3
PHYSICAL EDUCATION		2	2	2	2	2	2	2	2	2
FOREIGN LANGUAGE		-	-	-	-	-	-	5	5	5
OPTIONAL		2	2	2	2	2	2	2	2	2
SUBTOTAL		30								
ADDITIONAL ACTIVITIES		5	5	5	5	5	5	-	-	-
TOTAL		35								

Source: “OFERTA EDUCATIVA” by Ministerio de Educación, 2013

The General Unified Baccalaureate is an interdisciplinary approach that prepares students:

- For life and participation in a democratic society;
- For the workplace and the world of entrepreneurship; and,
- To pursue higher education studies.

It is divided in two:

- Baccalaureate in Sciences; and,
- Technical Baccalaureate.

Each type of approach is set for students that go from 15 – 18 years of age. The first baccalaureate is for any group of students that have an academic interest; while the second one is for a group that want to develop specific skills in a technical framework. Each Baccalaureate is composed of 3 levels with different curriculums. There are general subjects for the 3 levels as well as specific subject taking in consideration the type of approach sought.

Table 14: Curriculum for Baccalaureate			
SUBJECTS	WEEKLY HOURS OF CLASS PER SUBJECT / YEARS OF HIGH SCHOOL		
	1°	2°	3°
PHYSICS	4	-	-
CHEMISTRY	4	-	-
HISTORY AND SOCIAL SCIENCES	4	4	-
LANGUAGE AND LITERATURE	4	4	4
MATHEMATICS	4	4	4
FOREIGN LANGUAGE	5	5	5

DEVELOPMENT OF PHILOSOFICAL THINKING	4	-	-
PHYSICAL EDUCATION	2	2	2
ARTISTIC EDUCATION	2	2	-
COMPUTING FOR EDUCATION	2	-	-
PHYSICS-CHEMISTRY	-	4	-
BIOLOGY	-	4	-
ENTREPRENEURSHIP AND MANAGEMENT	-	2	2
EDUCATION FOR CITIZENS	-	4	3
TOTAL COMMON HOURS	35	35	20

Source: “OFERTA EDUCATIVA” by Ministerio de Educación, 2013

There are also additional hours that are distributed in the following way:

Table 15: Additional hours for Baccalaureate			
HOURS	WEEKLY HOURS OF CLASS / YEARS OF HIGH SCHOOL		
	1º	2º	3º
HOURS AT THE DISCRETION OF THE EDUCATIONAL INSTITUTION (Bs. SCIENCES)	5	5	5
ADDITIONAL HOURS TO THE BACCALAUREATE IN SCIENCES	0	0	15(electives)
ADDITIONAL HOURS TO THE TECHNICAL BACCALAUREATE	10	10	25

Source: “OFERTA EDUCATIVA” by Ministerio de Educación, 2013

In that sense the baccalaureate in sciences has 40 mandatory hours per week while the technical baccalaureate has 45 mandatory hours. The regulations also establish that any students from a technical baccalaureate can switch to the baccalaureate in sciences at the end of 1st grade or 2nd grade while the baccalaureate in sciences cannot do the same.

It is important to mention that in Ecuador there are 62 public and private institutions that provide at least one of the International Baccalaureate (IB) Programs. These programs are recognized by the Ecuadorian Minister of Education (2013). and are offer simultaneously with the National Baccalaureate. The students that pursue these programs obtain grades for both diplomas.

In order to approve any level it is necessary to achieve a grade of seven points out of ten (7/10). All grades shall be presented according the following scale. Once the student reaches the required grade they are promoted to the next level:

Table 16: Grading Scale	
Qualitative Scale	Quantitative Scale
Exceed the required knowledge	10
Dominate the required knowledge	9
Reach the required knowledge	7 – 8
It is next to reach the required knowledge	5 – 6
Required knowledge is not reach	≤ 4

Source: “OFERTA EDUCATIVA” by Ministerio de Educación, 2013

Finally, the types of educational institutions in Ecuador are:

- Public Schools (Central or Municipal Government)
- Church-State Schools
- Private Schools (Secular or Religious Education)
- Bi-national Schools

Higher Education System

The higher education system is undergoing a process of change as well. The most remarkable changes addressed by the new higher education law are the establishment of a national higher education accreditation system, and National Admissions System required of all students applying for higher education.

The Higher Education System consists of 3 levels of education:

- Technical or Technological (2 years of higher education)
- 3rd Level - Bachelor Degrees (4 – 6 years of education)
- 4th Level - Specialties, Masters and PhD

In the first year of the government of President Rafael Correa, the Asamblea Constituyente (2008) developed the new Constitution where is established that public education is free for its citizens until 3rd Level. Also, education was defined as a human right and it was stated that it would be free, secular, democratic, participative and intercultural.

Higher education is intended to impulse research in universities because of the importance of education on the development of a better country. The institutions that are evaluated and categorized in the higher education system are: universities, public and private polytechnic schools. Also the technical, technological and pedagogical higher institutions, as well as the arts and music conservatories are part of the Ecuadorian Higher Education system. According to the Constitution, the state will assign resources in a progressive way from the state’s general budget to the education sector with an annual increment of at least 0.5% until reach a minimum of 6% from GDP.

The Ley Orgánica de Educación Superior of 2010 establish that the higher education institutes where going to be evaluated so that they could be categorized on levels depending on their quality and efficiency in

education, infrastructure, diversification of faculties and other variables. Another important change established on the law is that teachers at the universities will have more requirements. For example, in order to be on the top categories as highest-level universities there should be a percentage of teachers that need a master's degree to hold their positions and for faculty positions as deans and directors there should be also a certain percentage that has a doctorate's degree.

The information about the accreditation and evaluation of higher education institutions is available for the public and can be found online along with information about the programs in general as well as the universities profile on the SENASCYT, CES and CEAACES web pages.

Secretaría Nacional de Educación Superior, Ciencia, Tecnología e Innovación (SENESCYT)

The SENESCYT, Secretaría Nacional de Educación Superior, Ciencia, Tecnología e Innovación, is the secretariat for higher education, science, technology and innovation. The SENESCYT exercises as the authority of the public policy for higher education and coordinates actions and activities between the Executive Function and the Higher Education Institutions. Some of the duties of the SENESCYT are:

1. Establish the coordination mechanisms between the Executive Function and the Higher Education Institutions;
2. Exercise as the authority in the higher education public policy;
3. Guarantee the gratuity in Higher Education;
4. Identify careers and programs of public interest according to the Development National Plan.
5. Design, implement, manage and coordinate the Sistema Nacional de Información de la Educación Superior del Ecuador (SNIESE) and the Sistema Nacional de Nivelación y Admisión (SNNA);
6. Design, manage and implement the scholarship policy of the government for Ecuadorian Higher Education along with the Instituto Ecuatoriano de Créditos Educativo y Becas (IECE);
7. Establish scientific and technological research policies according the development needs of Ecuador and encourage the Higher Education Institutions to develop those (LOES, 2010).

Some of the strategic objectives of the SENESCYT are:

1. Reach the average rate of enrollment and efficiency of Higher Education in Latin America; with emphasis on quality and the most exclude sectors of the society;
2. Achieve that 100% of Higher Education Institutions offer careers of proved quality, in relation of the needs of Ecuador and the strategies of the Plan Nacional del Buen Vivir;

3. Promote the improvement of Higher Education quality and offer complete, relevant, reliable, valid and updated information about Higher Education Institutions;
4. Increase 969 researchers dedicated to research, development and innovation (R&D&I);
5. Increase in 75% the publication of scientific and technological articles in indexed journals;
6. Reach 1% of expenditure in R&D&I;
7. Grant 7000 scholarships for postgraduate studies;
8. Establish the baseline of ancestral knowledge of Ecuador; and
9. Improve its efficiency and productivity (SENESCYT, 2013).

Among the functions of the SENESCYT is to regulate and ensure that Higher Education Institutions are in compliance with the equality of opportunities, merits and capacities principles. The SENESCYT has also established a format in which higher education institutions will present data and information about its students to be reported to the SNIIESE afterwards. The SENESCYT also guarantees the agility and gratuity in the recognition, homologation and re-validation of foreign degrees. Higher Education Institutions must report to the SENESCYT the list of graduates and degrees specifications so it can be uploaded to the system and validate the degrees (RLOES, 2011).

Consejo de Educación Superior

The CES, Consejo de Educación Superior, is the higher education council that is in charge of planning, regulating and coordinating the higher education system in Ecuador as mandated by the Ley Orgánica de Educación Superior in its article 15. Some of the duties and attributions of the Consejo de Educación Superior are:

1. Approve the plan for internal development and projections of the Higher Education System;
2. The approval for the creation of universities and polytechnic schools;
3. The approval for the creation of higher technical, technological, and pedagogical institutions and arts and music conservatories;
4. The disapproval of the creation of universities and polytechnic schools;
5. Approve the suspension of universities and polytechnic schools;
6. Approve the creation of career programs for graduate and post-graduate programs in universities and polytechnic schools;
7. Inform the Ecuadorian society, the President and Consejo de Participación Ciudadana y Control Social, annually the state of the higher education system;
8. Elaborate and approve its annual budget;
9. Impose sanctions to authorities in the Higher Education System who break the law;

10. Monitor the compliance of the universities and polytechnic schools' academic and legal aspects (LOES, 2010).

The Consejo de Educación Superior is composed of four representatives from the executive power who are the Secretary of the SENESCYT, the Secretary of SENPLADES or its delegate, the minister in charge of the Sistema Educativo Nacional, and the minister in charge of the Política de Producción; six academic chosen by public contest of merits; and one representative of the students. The president will be elected among the members of the council by vote. At the present time the President of the CES is the Economist Rene Ramirez (CES, 2013).

Consejo de Evaluación, Acreditación y Aseguramiento de la Calidad de la Educación Superior

The CEAACES, Consejo de Evaluación, Acreditación y Aseguramiento de la Calidad de la Educación Superior, is the organism that regulates the auto-evaluation of the universities, polytechnic schools and higher technical and technological institutes, and is in charge of executing the process for external evaluation, accreditation, academic classification and quality assurance of higher education institutions. Some of the main duties of the CEAACES are:

1. Plan, coordinate and execute the activities for the process of evaluation, accreditation, academic classification and quality assurance;
2. Approve the process for evaluation and accreditation of institutions of higher education;
3. Approve the process for evaluation and accreditation of the career programs of the institutions of higher education;
4. Elaborate the technical documents for the evaluation, accreditation, classification and quality assurance process;
5. Approve the Code of Ethics that will govern on the member of any higher education organism;
6. Grant the certificates of accreditation to the higher education institutions and its career programs for graduate and post-graduate;
7. Establish the system for categorization of universities and higher education institutions;
8. Inform the society about the result of the evaluations and make the information public and available;
9. Establish agreements with international entities of evaluation and accreditation to create bilateral bonds; and
10. Elaborate the reports that are used for the creation or extinction of higher education institutes and universities based on their evaluation results (LOES, 2010).

The CEAACES is composed by six academic members, from whom three are chosen by public contest by merits and the President appoints

the other three members. From the three members appointed by the President, the six members will chose the council president. At the present time the president of the CEAACES is Francisco Cadena (CEAACES, 2013).

Consejo de Evaluación y Acreditación de la Educación Superior del Ecuador

The Consejo de Evaluación y Acreditación de la Educación Superior del Ecuador (CONEA), was an organism created by the government with the responsibility to create a system for university accreditation in Ecuador. The accreditation awarded by CONEA (2009) gave every university in the country a certification and a rating based on their performance. The purpose of rating higher education institutions is to ensure that these institutions are within the high-quality academics standards and that there is a common framework to follow in order to be certified. Prior to the reforms, as shown by Vega (2007), the higher education system was composed by 29 public universities and polytechnic schools, 9 private universities and polytechnic schools co-financed by the state and 34 private universities and polytechnic schools.

The results of the 2009 Institutional Performance Evaluation of Universities and Polytechnic Schools in Ecuador divided the 68 universities evaluated into 5 categories being A the highest rated and E the lowest based on four parameters: academics, students and learning environment, research, and internal/administrative management. After the 2009 CONEA report the 26 universities located in the Category E were evaluated once again to determine if these institutions met the minimum requirements to be considered higher education institutions. At the end of this evaluation, 14 universities were closed by the CEAACES for lack of academic quality to provide higher education. The rest of higher education institutions take part of the Category D while the Category E is not going to be used anymore.

Table 17: Ranking and Type of Universities in Ecuador			
Category A			
UNIVERSITIES	Public	Co-financed	Private
49. ESCUELA POLITÉCNICA NACIONAL (EPN)	✓		
50. ESCUELA POLITÉCNICA DEL EJERCITO (ESPE)	✓		
51. ESCUELA SUPERIOR POLITÉCNICA DEL CHIMBORAZO (ESPOCH)	✓		
52. ESCUELA SUPERIOR POLITÉCNICA DEL LITORAL (ESPOL)	✓		
53. PONTIFICIA UNIVERSIDAD CATÓLICA DEL ECUADOR (PUCE)		✓	

54. UNIVERSIDAD CENTRAL DEL ECUADOR (UCE)	✓		
55. UNIVERSIDAD DE CUENCA (UC)	✓		
56. UNIVERSIDAD DEL AZUAY (UDA)		✓	
57. UNIVERSIDAD SAN FRANCISCO DE QUITO (USFQ)			✓
58. UNIVERSIDAD TÉCNICA DE AMBATO (UTA)	✓		
59. UNIVERSIDAD TÉCNICA PARTICULAR DE LOJA (UTPL)		✓	

Category B

1. UNIVERSIDAD AGRARIA DEL ECUADOR (UAE)	✓		
2. UNIVERSIDAD CATÓLICA DE SANTIAGO DE GUAYAQUIL (UCSG)		✓	
3. UNIVERSIDAD DE ESPECIALIDADES ESPÍRITU SANTO (UEES)			✓
4. UNIVERSIDAD DE GUAYAQUIL (UG)	✓		
5. UNIVERSIDAD DE LAS AMÉRICAS (UDLA)			✓
6. UNIVERSIDAD ESTATAL DE BOLÍVAR (UEB)	✓		
7. UNIVERSIDAD NACIONAL DE CHIMBORAZO (UNACH)	✓		
8. UNIVERSIDAD NACIONAL DE LOJA (UNL)	✓		
9. UNIVERSIDAD POLITÉCNICA SALESIANA (UPS)		✓	
10. UNIVERSIDAD TÉCNICA DEL NORTE (UTN)	✓		

Category C

1. ESCUELA SUPERIOR POLITÉCNICA AGROPECUARIA DE MANABÍ (ESPAM)	✓		
2. UNIVERSIDAD CATÓLICA DE CUENCA (UCACUE)		✓	
3. UNIVERSIDAD ESTATAL DE MILAGRO (UNEMI)	✓		
4. UNIVERSIDAD ESTATAL DEL SUR DE MANABÍ (UNESUM)	✓		
5. UNIVERSIDAD INTERNACIONAL DEL ECUADOR (UIDE)			✓
6. UNIVERSIDAD LAICA ELOY ALFARO DE MANABÍ (ULEAM)	✓		

7. UNIVERSIDAD NAVAL MORÁN VALVERDE			✓
8. UNIVERSIDAD TÉCNICA DE COTOPAXI (UTC)	✓		
9. UNIVERSIDAD TÉCNICA DE MACHALA (UTMACH)	✓		
10. UNIVERSIDAD TÉCNICA ESTATAL DE QUEVEDO (UTEQ)	✓		
11. UNIVERSIDAD TÉCNICA LUIS VARGAS TORRES (UTELVT)	✓		
12. UNIVERSIDAD TECNOLÓGICA EQUINOCCIAL (UTE)		✓	

Category D

1. UNIVERSIDAD CASA GRANDE (UCG)			✓
2. UNIVERSIDAD DE LOS HEMISFERIOS (UDLH)			✓
3. UNIVERSIDAD ESTATAL AMAZÓNICA (UEA)	✓		
4. UNIVERSIDAD INTERNACIONAL SEK (UISEK)			✓
5. UNIVERSIDAD LAICA VICENTE ROCAFUERTE (ULVR)		✓	
6. UNIVERSIDAD REGIONAL DE LOS ANDES (UNIANDES)			✓
7. UNIVERSIDAD TÉCNICA DE BABAHOYO (UTB)	✓		
8. UNIVERSIDAD TÉCNICA DE MANABÍ (UTM)	✓		
9. UNIVERSIDAD TECNOLÓGICA ECOTEC (ECOTEC)			✓
10. UNIVERSIDAD POLITÉCNICA ESTATAL DEL CARCHI (UPEC)	✓		
11. UNIVERSIDAD TECNOLÓGICA EMPRESARIAL DE GUAYAQUIL (UTEG)			✓
12. UNIVERSIDAD DE ESPECIALIDADES TURÍSTICAS (UCT)			✓
13. UNIVERSIDAD TECNOLÓGICA INDOAMÉRICA (UTI)			✓
14. UNIVERSIDAD PARTICULAR SAN GREGORIO DE PORTOVIEJO (USGP)			✓
15. UNIVERSIDAD DEL PACÍFICO - E. DE NEGOCIOS (UPACIFICO)			✓
16. UNIVERSIDAD METROPOLITANA (UMET)			✓
17. UNIVERSIDAD ESTATAL PENÍNSULA DE SANTA ELENA (UPSE)	✓		

18. UNIVERSIDAD IBEROAMERICANA DEL ECUADOR (UNIBE)	✓
19. UNIVERSIDAD TECNOLÓGICA ISRAEL (UISRAEL)	✓
20. UNIVERSIDAD DE OTAVALO (UO)	✓

Source: “UNIVERSIDADES Y ESCUELAS POLITECNICAS” by CES, 2013

In terms of geographical location most of universities and polytechnic schools are located in the provinces of Pichincha and Guayas. In the province of Pichincha there are 16 universities and polytechnic schools from which 6 are public, 2 are co-financed and 8 are private. In the province of Guayas there are 15 universities and polytechnic schools from which 5 are public, 2 are co-financed and 8 are private. The remaining universities are located in the provinces of Azuay, Manabí, Tungurahua, Loja, Chimborazo, Imbabura, El Oro, Los Rios, Carchi, Cotopaxi, Bolivar, Esmeraldas, Pastaza and Santa Elena (CES, 2013).

In Ecuador there are three universities that only offer postgraduate studies (see Table 18). These universities are placed in the Category A by the CEAACES.

Table 18: Postgraduate Universities in Ecuador	
UNIVERSITIES	Public
FACULTAD LATINOAMERICANA DE CIENCIAS SOCIALES (FLACSO)	✓
INSTITUTO DE ALTOS ESTUDIOS NACIONALES (IAEN)	✓
UNIVERSIDAD ANDINA SIMÓN BOLIVAR (UASB)	✓

Source: “UNIVERSIDADES Y ESCUELAS POLITECNICAS” by CES, 2013

In 2009, the CONEA also evaluates the Technical, Technological and Pedagogical Higher Institutes and the Art and Music Conservatories in Ecuador placing them in 3 different Categories according various educational parameters. At the moment there are 282 higher institutes from which 143 are publics, 130 are private and 9 are co-financed that are currently being evaluated by the CEEACES.

Prometeo Project

The Prometeo Project is a SENESCYT (2013) initiative that looks to promote and strengthen scientific research, innovation and technological development in strategic areas in Ecuador. This Project contemplates that foreign specialists with a wide, well known experience in their particular area of study, technology, innovation and productivity, go to Ecuador to conduct scientific research projects. In the same way, the Prometeo Project aims to recover the Ecuadorian talents that are living overseas and offers local incentives for them to return to Ecuador.

The requirements to participate in the program are the following:

- Have a PhD degree in areas related to education, science and technology, from world class Universities.
- Have produced scientific research within related areas to his/her proposed project.
- Have participated as lead researcher or project coordinator of scientific or technological projects.
- Have been awarded scholarships, grants, prizes or other recognition for his/her scientific work.
- Not be an Ecuadorian resident at the time the application is submitted (SENESCYT, 2013).

Also, it is important to mention that the areas of specialization and expertise shall be inside the following:

- Life sciences
- Natural resource sciences
- Production and innovation sciences
- Social and behavioral sciences

The incentives for the participation in the program are shown in table 19; Ecuadorian and foreign researchers receive the same benefits:

Table 19: Ecuadorian and foreign researchers benefits		
Description	Ecuadorian and foreign researchers	
	Senior (US\$)	Junior (US\$)
Professional fees (per month)	6,000	4,320
Airfare (round trip, one time)	3,000	3,000
Accommodations (up to 6 months)	500 (per month)	500 (per month)
Health and life insurance	2,500	2,500
Scientific visits	2,000	2,000
Supplies	2,000	2,000

Source: "PROMETEO" by SENESCYT, 2013

Scholarships

Ecuadorian students are looking for financial opportunities that help them achieve a higher education in Ecuador and around the world. Whether these Ecuadorian students are searching for an undergraduate, graduate or postgraduate degree, the SENESCYT has been and is giving funds to make this possible. The SENESCYT gives funds to students searching for a higher education abroad because it supports its principle of innovation and transfer of knowledge and technology that is so important for the development of Ecuador. It provides funds in the form of scholarships to undergraduate and postgraduate students.

The government through the SENESCYT is looking to boost local talent by increasing knowledge, experiences, cultural exchange that will lead to increase research and development in Ecuador and within prioritized areas of study. These areas of study (see Table 20) are aligned with the development national plan and the public policy of the SENESCYT in order to promote a change in the productive sectors of Ecuador. The total amount of scholarships awarded at the time by SENESCYT is of 8673 which encloses all the scholarship programs offered with a total investment of 49.3 million dollars.

Table 20: Areas of Study accepted by the SENESCYT	
Areas of Study	
Life Sciences	Biochemistry, Biotechnology, Botany, Microbiology, Pharmacology, Immunology, Medical Therapy, Marine Biology, Conservation Biology, Gerontology, Genetics, Oncology, Epidemiology, Health, Mathematics, Physics, Chemistry, etc.
Production and Innovation Sciences	Agriculture, Agribusiness, Aquaculture, Mariculture, Physical Oceanography, Animal Production, Fish Farming, Food Science, Electromechanics, Nanotechnology, Telecommunications, Information and Communication Technologies, etc.
Natural Resources Sciences	Hydrology, Oceanography, Environment, Natural Resources, Meteorology, Volcanology, Petroleum Engineering, Hydrocarbons, Energy, Geology/Geosciences, Mining, Metallurgy, Geography, Water Resources, Forest Resources, Natural Gas, Risk/Disaster Prevention, etc.
Social Sciences	Education, Journalism, Philosophy, History, Economics, Applied Economics, Econometric, Demographics, Management and Administration of Hospitals, Security, Heritage Conservation, Archeology, etc.
Medical Specialties	All medical and dental specialties
Arts and Culture	Plastic arts, Performing Arts, Dance, Music, Film, Photography, etc.

Source: "Becas" by SENESCYT, 2013

The set of international scholarship programs that the SENESCYT offers are the following:

- Convocatoria Abierta 2013
- Universidades de Excelencia
- Becas Enseña Ingles
- Becas para Docentes Universitarios

Convocatoria Abierta 2013 is a scholarship program for Ecuadorian students to study masters, doctorates, and medical specialties in prestigious international higher education institutions. The total amount of the scholarship varies in relation to the region of study; in that sense, the scholarships available for United States and Canada cover up to \$103,040.48 for master's degree, \$217,649.76 for doctorate's degree and \$50,454.24 per year for medical specialties. Airline tickets will be covered up to \$4,000 and living expenses (food, public transport, basic services, and housing) up to \$2,800 every month. Health and Life insurance will be covered up to \$1,200 annually for every year the students are in the foreign country.

Apart from the costs detailed above, students will have coverage in other areas. Enrollment, tuition and degree rights are among the expenses the students may incur while registering or graduating. These costs will be backed up by certification from the university or by invoices. Class materials such as books, subscriptions to magazines and software will be covered as well as research expenses (travel for information gathering and laboratory reports), all this must be backed up by invoices and be part of the study program of the university. For master's degree it covers up to \$2,100, for doctorate degrees up to \$4,325 and for medical specialties up to \$4,850; all of them are considered in a yearly basis (SENESCYT, 2013).

The Convocatoria Abierta 2013 scholarship program covered up to two years of study for the master's degree, four years for doctorate's degree and from one to five years for medical specialties. To apply for this scholarship the person must be an Ecuadorian citizen, be no more than 35 years old for the master's program and no more than 45 years old for the doctorate program. The applicant must have a third level degree and an acceptance letter from a foreign university.

Another scholarship program that the SENESCYT offers is the Universidades de Excelencia program that offers Ecuadorian students the opportunity to study in one of the 175 best universities in the world. This program is available for students that want to acquire third or four level degrees. The program offers full scholarships that cover every necessary expense that the student might have such as enrollment, tuition, degree rights, life insurance, health insurance, living expenses, research and thesis expenses and airline tickets. One of the most important requirements to access this scholarship is that the students must have an

acceptance letter from one of higher education institutions accepted by the SENESCYT.

This scholarship is very important for the development of Ecuadorian professionals because it is offering the opportunity to students with excellent profiles but limited economical capabilities to study in one of the best universities in the world. One important fact to mention is that students must return to Ecuador and stay in Ecuador for at least double the time they were studying abroad so that they can share their knowledge and experiences. This is aimed at strengthening professional culture in Ecuador with intercultural and technological exchange, among other factors to improve life quality.

The Universidades de Excelencia program covers up to \$250,000.00 and the amount covered by type of cost is similar to the values covered in the Convocatoria 2013 scholarship. The years of study covered depend on the level of education the students wants to complete. For undergraduate studies the scholarship covers up to seven years, for masters two years, for doctorate four years, and medical specialties from one to five years. These study programs are only valid if the classes are on campus; online and distance courses are not accepted (SENESCYT, 2013).

The Universidades de Excelencia program aims of making it possible for students with a brilliant academic performance to study in one of the 175 best universities in the world is remarkable. Nevertheless, they have limitations in the matter of career choices. Students who are accepted to one of the first 50 (see table 21) higher education institutions on the list will have the right to choose any career among the ones offered by the institution. The students that are accepted in the remaining higher education institutions must choose a specific major depending on the area of study the SENESCYT (2013) has appointed for those institutions. This is done because there are areas of study that are marked as necessary for the development of the country according the Development National Plan. These areas are: life sciences, natural resources sciences, production and innovation sciences, social sciences, and culture and art.

Table 21: Top 50 Higher Education Institutions in Universidades de Excelencia Program

No.	UNIVERSITY	COUNTRY
1	HARVARD UNIVERSITY	UNITED STATES
2	MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)	UNITED STATES
3	STANFORD UNIVERSITY	UNITED STATES
4	UNIVERSITY OF CAMBRIDGE	UNITED KINGDOM
5	CALIFORNIA INSTITUTE OF TECHNOLOGY	UNITED STATES
6	UNIVERSITY OF CALIFORNIA, BERKELEY	UNITED STATES
7	COLUMBIA UNIVERSITY	UNITED STATES
8	UNIVERSITY OF OXFORD	UNITED KINGDOM
9	UNIVERSITY OF PENNSYLVANIA	UNITED STATES
10	CORNELL UNIVERSITY	UNITED STATES
11	YALE UNIVERSITY	UNITED STATES

12	UNIVERSITY OF CHICAGO	UNITED STATES
13	UNIVERSITY OF MICHIGAN	UNITED STATES
14	JOHNS HOPKINS UNIVERSITY	UNITED STATES
15	PRINCETON UNIVERSITY	UNITED STATES
16	UNIVERSITY OF CALIFORNIA, LOS ANGELES	UNITED STATES
17	UNIVERSITY COLLEGE LONDON	UNITED KINGDOM
18	UNIVERSITY OF WISCONSIN – MADISON	UNITED STATES
19	UNIVERSITY OF TORONTO	CANADA
20	UNIVERSITY OF WASHINGTON	UNITED STATES
21	SWISS FEDERAL INSTITUTE OF TECHNOLOGY ZURICH	SWITZERLAND
22	THE UNIVERSITY OF TOKIO	JAPAN
23	DUKE UNIVERSITY	UNITED STATES
24	UNIVERSITY OF ILLINOIS AT URBANA CHAMPAIGN	UNITED STATES
25	IMPERIAL COLLEGE LONDON	UNITED KINGDOM
26	CARNEGIE MELLON UNIVERSITY	UNITED STATES
27	UNIVERSITY OF BRITISH COLUMBIA	CANADA
28	NEW YORK UNIVERSITY	UNITED STATES
29	UNIVERSITY OF TEXAS AT AUSTIN	UNITED STATES
30	NORTHWESTERN UNIVERSITY	UNITED STATES
31	UNIVERSITY OF CALIFORNIA, SAN DIEGO	UNITED STATES
32	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	UNITED STATES
33	KYOTO UNIVERSITY	JAPAN
34	UNIVERSITY OF EDINBURGH	UNITED KINGDOM
35	UNIVERSITY OF MINNESOTA, TWIN CITIES	UNITED STATES
36	MCGILL UNIVERSITY	CANADA
37	AUSTRALIAN NATIONAL UNIVERSITY	AUSTRALIA
38	UNIVERSITY OF MELBOURNE	AUSTRALIA
39	WASHINGTON UNIVERSITY IN ST LOUIS	UNITED STATES
40	PENNSYLVANIA STATE UNIVERSITY	UNITED STATES
41	UNIVERSITY OF MANCHESTER	UNITED KINGDOM
42	UNIVERSITY OF CALIFORNIA, SANTA BARBARA	UNITED STATES
43	UNIVERSITY OF CALIFORNIA, DAVIS	UNITED STATES
44	THE UNIVERSITY OF HONG KONG	HONG KONG
45	UNIVERSITY OF SOUTHERN CALIFORNIA	UNITED STATES
46	UNIVERSITY OF MARYLAND, COLLEGE PARK	UNITED STATES
47	KING'S COLLEGE LONDON	UNITED KINGDOM
48	UNIVERSITY OF PITTSBURGH	UNITED STATES
49	NATIONAL UNIVERSITY OF SINGAPORE	SINGAPUR
50	BROWN UNIVERSITY	UNITED STATES

Source: “Becas” by SENESCYT, 2013

The Enseña Ingles scholarship program is aimed for Ecuadorian professionals in education that wish to improve their knowledge and skills in the English language in order to return and become English teachers in public schools of Ecuador. The components of the program are: Teaching English as Second Language (TESL) Training and Master in TESL Curriculum and Instruction. For the first component the scholarship covers up to \$30,965.00 for a seven months period while that for the second component covers up to \$51,992.40 for up to one year of studies. In both components the students must return to Ecuador once the program is ended; the first group must work for two years in the Ministry of Education while the second group must work double the time of the study program in the Ministry of Education or in any public high school or higher education institution depending on the case.

The Docentes Universitarios scholarship program is a government effort to provide university teachers the opportunity to improve their

knowledge by obtaining a doctorate degree in order to be a tenured professor in their respective universities. The amount of the scholarship varies depending on the region where the holder of the scholarship is going to study. The SENESCYT has delimited three regions as shown in the table 22:

Table 22: Doctorate degree scholarship amounts		
Latin America and the Caribbean up to (USD)	US, Canada and Oceania up to (USD)	Europe, Asia and Africa up to (USD)
\$161,588.25	\$217,649.76	\$203,565.60

Source: "Becas" by SENESCYT, 2013

Once the holders of the scholarship have finished their study program which must have a duration no longer than 4 years to obtain the PhD; it is mandatory for them to return to their respective universities to fulfill the period of compensation which is of 10 years in the case of holders with the full program covered and the double of years of the program for holders that obtain the scholarship in their second year of studies.

CHAPTER 3

ECUADOR-CANADA RELATIONSHIP IN HIGHER EDUCATION

Analysis of the Impact

Canada is one of the few countries in the world that doesn't have a national minister of education therefore it is not possible to determine the impact that academic agreements can cause in general terms. According to the Canadian Bureau for International Education (CBIE, 2009) though study abroad has been and still is a global phenomenon, the destinations that attract the most students are highly concentrated. In Canada data about the areas of interest, but not the specific countries in which students actually study, are available.

The impact varies according to the province and so far Ecuador's closest relationship in Education has been with specific provinces, especially with the Government of Quebec. The last agreement signed with Quebec dated from 2004 and last for at least three years. It was called: Convenio de Cooperación en las Áreas de la Educación y la Formación (Cooperation agreement in the areas of education and training). The purpose of this type of agreement was to provide Ecuadorian students with grant exemptions to study in Higher Education Institutions in Quebec and Canadian students to study in Ecuadorian Higher Education Institutions. Quebec signs these agreements to provide exemption by quotas. In 2005, according to Bonneville & Vigneau (2005) the total quota for all of these agreements was 1370 students (see table 23). Those who are exempt from additional duty pay the same tuition fees as Québec students. However, they must pay other fees which include health insurance and hospitalization.

Table 23: List of countries to which the Government of Quebec grants exemptions (2005)

Country	Quota	Country	Quota
Algeria	125	Israel	10
Germany	10	Italy	10
Andorra	5	Lebanon	60
Belgium	20	Luxemburg	10
Benin	25	Madagascar	10
Bolivia	5	Mali	25
Burkina Faso	30	Morocco	150
Cameroon	30	Mauritius	5

China	125	Mauritania	10
Colombia	30	Mexico	65
Congo	10	Nigeria	20
South Korea	30	Panama	5
Ivory Coast	75	Peru	20
Egypt	20	DR Congo	20
Ecuador	15	Rwanda	10
Spain	10	Senegal	90
Gabon	50	Togo	15
Guinea	30	Tunisia	140
Haiti	20	Uruguay	5
Honduras	5	Vietnam	20

Source: “Droits de scolarité supplémentaires des étudiants canadiens non-résidents et des étudiants étrangers 2005-2006 et 2006-2007” by Bonneville & Vigneau. Ministre de l'Éducation, du Loisir et du Sport, 2005.

Quebec continued to sign agreements with various countries to exempt some student's additional rights regarding tuition payment (Ecuador was one of these countries). Unfortunately some of these agreements have been finished through the year by either one of the signing parties. Therefore, the total quota exemptions granted by intergovernmental agreements and international organizations showed a slight decrease. According to Vigneau (2012), from 2006 to 2011, the quota has dropped 23.4% to stand at 1092 grants exemption. It is important to note that five Latin American countries do not have an agreement with Quebec: Bolivia, Ecuador, Honduras, Panama and Uruguay (The latest agreement between Ecuador and Quebec lasted for three years and run from 2004 – 2007). These exemptions are meant to boost scientific collaboration of universities on international grounds and increase bilateral cooperation between Quebec and countries. Between the 2011-2012 period, Quebec had forty agreements in force.

One of the most promising areas for further Canadian engagement with Ecuador is in the Ecuadorian education market, especially at the post-graduate level. Canada's direct presence in the Ecuadorian higher education market has been minimal. Nevertheless, there are Canadian universities that have exchange/study abroad agreements and memorandum of understandings with Ecuadorian universities in order to boost cooperation.

Table 24: Cooperation between Higher Education Institutions of Ecuador and Canada

Ecuadorian Universities	Canadian Universities
Pontificia Universidad Católica del Ecuador	Université de Montréal
Universidad San Francisco de Quito	Bishop's University Simon Fraser University University of Calgary

	University of Ottawa University of Alberta, School of Business
Universidad de Especialidades Espíritu Santo	King's University College College of the Rockies Grant MacEwan University University of Lethbridge Niagara College Nova Scotia Community College Université du Québec a Trois-Rivières
Universidad Católica Santiago de Guayaquil	Université du Québec a Montréal
Universidad Casa Grande	University of New Brunswick York University Université du Québec a Montréal College of the Rockies Fanshawe College
Universidad Ecotec	Niagara College College of the Rockies
Escuela Politécnica del Litoral	L'École de Technologie Supérieure (ETS) Lambton College Northern Alberta Institute of Technology Sheridan College
Universidad Técnica Particular de Loja	L'École de Technologie Supérieure (ETS) University of Ottawa

Source: "UNIVERSIDADES Y ESCUELAS POLITECNICAS" by CES. Extrapolation by the Author on November 13th, 2013.

Below are some facts that clearly show how the relationship between Ecuadorian and Canadian Higher Education Institutions has impacted international bilateral educational cooperation:

- Since 2001, more than 130 interns and students from College of the Rockies have traveled overseas to work and/or study in China, Hong Kong, Vietnam, Tanzania, Kenya, Mozambique, Ecuador, Peru, Guyana, Spain, Finland and Scotland.
- College of the Rockies Student Study Abroad program now includes Australia, Brazil, Chile, Dominican Republic, Ecuador, France, Spain, Scotland, the Netherlands and Peru (College of the Rockies, 2012).
- The University of Alberta's Business Faculty has established closer ties with Ecuadorian counterparts and the private sector. These relationships seek to increase Ecuadorian enrollment in Alberta through student exchanges.
- The Bachelor of Science Program at the Grant MacEwan University has a Tropical Rainforest Ecology course (BIOL 365) that includes a field trip to the Tiputini Biodiversity Station in the lowland

rainforest of eastern Ecuador as well as a trip to the Galapagos Islands.

- Grant MacEwan University also actively recruits international students from Ecuador through visits to several high schools in Quito and Guayaquil (Government of Alberta, 2011).
- College of the Rockies in the 2011/12 period received 137 international students from 30 countries. 40% of these students are in English Language Training while 60% are in Academic programs including Business, Tourism and University Transfer (College of the Rockies, 2012).

The Emerging Leaders in the Americas Program (ELAP) provides short term scholarship opportunities for students from Latin America and the Caribbean, including Ecuador, to study or conduct research in Canada. The program is predicated on Canadian and Ecuadorian institutional linkages which facilitate the creation of scholarship opportunities. These academic agreements help foster research collaborations and student exchanges. Since its inception 43 Ecuadorian students from 7 universities have received scholarships to study and experience Canada through this program (Government of Canada, 2013).

The promotion strategy included promotional events at high schools, fairs and the Imagine Education au/in Canada web page where one can easily find information related to student life, costs, visa process and scholarships. With that purpose in mind, in 2012, the Embassy in Ecuador hosted the *Imagine Study in Canada* education fair in Guayaquil in partnership with the Ecuadorian Canadian Chamber of Commerce of Guayaquil to showcase the benefits of obtaining education in Canada. Thirteen Canadian postsecondary institutions participated attracting more than 600 visitors interested in studying in Canada. In 2013 the Embassy organized two education fairs in two cities: Guayaquil on September 30 and Quito on October 1 (Government of Canada, 2013).

At the undergraduate level, according to the International Education Market of Ecuador Report (2012), there is a potential market of approximately 1,500 Ecuadorian students who currently go to study overseas for their higher education studies at an estimated value of CAD 30.5 million/year. Ecuadorians are taking into consideration that it is possible to obtain a high quality education in Canada at a significantly lower cost than in other countries in the world. The report remarks that the marketing efforts to recruit students should focus on this factor due that an in house research showed that 67% of potential students are not aware of the cost difference in the education area. The biggest opportunity for recruitment is in the Master's and PhD market segment.

Due that recent higher education regulation in Ecuador (RLOES, 2011) requires the majority of university professors to hold a PhD degree by 2017; it has created an open window for a broader cooperation in the

education area of both countries. This Law represents an opportunity for Canadian institutions offering Master's and PhD degrees. An estimated 15,000 professors will need to obtain a Master's degree and 32,000 will need a PhD.

CHAPTER 4

LINEAMENTS OF THE AGREEMENT

The Agreement

For an International Cooperation Agreement to be successful it is important to establish the framework in which the two or more parties are going to work. All the rules have to be clear to make possible to obtain the most benefits from an agreement. There are different ways to do it and depends mostly of what the parties want to obtain. It is important to find a consensus so everyone is happy to sign the agreement.

In order to decide if an academic agreement is beneficial or not there are some questions that can help in the process like: What are the expected outcomes of the proposed relationship? What planning, communication or collaboration has already occurred? What are the benefits to the different stakeholders? How would the partnership support country's mission or enhance its areas of priority? What is the potential for expanding the partnership beyond its original scope? How would the partnership complement existing international collaboration? What are the financial implications of the proposed partnership? How would a formal agreement enhance partnership? These questions are examples taken from the University of Georgia Office for International Education (2013); like these, there are many different ways to accept or discard agreements.

In the next paragraphs there is a draft of an agreement between Ecuador and Canada that establish a framework for cooperation in Higher Education, Training, Science, Technology and Innovation. This agreement can help boost the relationship between these two countries and benefit hundreds of students and researchers per year. As a side note, this agreement template was developed based on two previous agreements:

1. Agreement between the European Community and the Government of Canada establishing a framework for cooperation in higher education, training and youth; and
2. Framework Agreement between the Government of Canada and the Government of the Federative Republic of Brazil for cooperation on science, technology and innovation.

Proposed Agreement for Future Bilateral Academic and Scientific Cooperation

Article 1

Purpose

This Agreement establishes a framework for cooperation in higher education, training, science, technology and innovation between the Government of Ecuador and the Government of Canada; in fields of common interest and on the basis of equality and mutual benefit.

Article 2

Definitions

For the purpose of this Agreement:

- 1) 'cooperating entity' means any governmental organisation of the Parties or their territorial units, higher education institution, training institution, public or private research institution, industry, enterprise and other research and development organisations participating in cooperative activity;
 - a) 'higher education institution' means any establishment according to either Party's applicable laws or practices that offers qualifications or diplomas at higher education level, irrespective of the designation given to it;
 - b) 'training institution' means any type of public, semi-public or private body, which, irrespective of the designation given to it, in accordance with either Party's applicable laws and practices, designs or undertakes vocational education or training, further vocational training, refresher vocational training or retraining contributing to qualifications recognised by the competent authorities;
- 2) 'cooperative activity' means any science, technology or innovation related activity pursuant to this Agreement carried on by the Parties or communicated to the Parties by cooperating entities in a timely manner;
- 3) 'implementing protocol' means a legally binding instrument in written form between the Parties for the conduct of cooperative activities;
- 4) 'information' means scientific, technological or technical data, or research and development results or methods stemming from cooperative activities including design procedures and techniques, product formulas, manufacturing methods, processes and treatments, the chemical composition of materials, computer programs, data compilations and employee know-how such as specialized skills and experience; and any other data as may be jointly decided in writing by the Parties
- 5) 'intellectual property' shall have the meaning found in Article 1.2 of the Agreement on Trade-Related Aspects of Intellectual Property

Rights, which is Annex 1C of the Marrakech Agreement Establishing the World Trade Organization (WTO) done at Marrakech on 15 April 1994 (TRIPS);

- 6) 'students' means all those persons who follow learning or training courses or programmes which are run by higher education or training institutions as defined in this Article, and that are recognised or financially supported by the competent authorities;

Article 3

Objectives

1. The general objectives of this Agreement shall be to:
 - (a) promote mutual understanding between the peoples of Ecuador and Canada including broader knowledge of their languages, cultures and institutions; and
 - (b) improve the quality of human resource development in both Ecuador and Canada, by facilitating the acquisition of skills required to meet the challenges of the global knowledge-based economy.
2. The specific objectives of this Agreement shall be to:
 - (a) enhance an Ecuadorian and a Canadian value-added dimension to cooperation in higher education, training, science, technology and innovation;
 - (b) contribute to exchanges between citizens of both Ecuador and Canada;
 - (c) contribute to the development of higher education, research and training institutions;
 - (d) promote and/or enhance partnerships among stakeholders active in the areas of higher education, training, science, technology and innovation in Ecuador and Canada; and
 - (e) contribute to the professional development of individuals while achieving the general objectives of the Agreement.
3. The operational objectives of this Agreement shall be to:
 - (a) support collaboration between higher education, research and training institutions with a view to promoting and developing joint study, research and/or training programmes and student, faculty and researcher mobility;
 - (b) improve the quality of student mobility by promoting transparency, mutual recognition of qualifications and periods of study and training, and where appropriate, portability of credits;
 - (c) support mobility of professionals (including professionals-in-training) and researchers with a view to improving mutual understanding, and expertise, of issues relevant to Ecuador/Canada relations;
 - (d) support collaboration among public and private organisations active in the areas of higher education, research and training with a view to encouraging discussion and exchange of experience on policy issues.

Article 4

Principles

Cooperation and cooperative activities under this Agreement shall be conducted on the basis of the following principles:

- 1) full respect for the responsibilities of Ecuador and for the legislative powers of the Provinces and Territories of Canada in the fields of education, training, science, technology and innovation, and the autonomy of the higher education, research and training institutions;
- 2) overall balance of benefits from activities undertaken through this Agreement;
- 3) broad participation across Ecuador and the Provinces and Territories of Canada;
- 4) comparable access to the activities of research and technological development, where such access is practicable, carried out by each cooperating entity in cooperative activities;
- 5) peaceful, non-military uses;
- 6) recognition of the full cultural, social, and economic diversity of Ecuador and Canada;
- 7) enhanced collaboration between Ecuador and Canada and complementarity with bilateral programmes and initiatives in higher education, training and research between Ecuador and the Provinces and Territories of Canada;
- 8) respect for the applicable international agreements to which both Parties are a party.

Article 5

Areas of Cooperative Activities

All areas of science, technology and innovation for peaceful, non-military purposes may be supported under this Agreement. Priority areas for cooperative activities shall be jointly decided in writing from time to time by the Parties.

Article 6

Forms of Cooperative Activities

Cooperative activities may take the following forms:

- 1) joint projects and development activities in higher education, research and training areas;
- 2) pooling of research and development projects, already underway in each Party's territory, into cooperative activities;
- 3) facilitation of commercially viable research and development activities;
- 4) mobility of students in the framework of joint study programmes, mutual credit recognition, language and cultural preparation, with a goal of parity in the flows in each direction;
- 5) financial support for student mobility to higher education institutions that have a proven track record of excellence in the implementation of joint projects funded by the Parties;

- 6) organization of conferences, seminars, symposia, working groups, professional development workshops, benchmarking exercises and address horizontal higher education issues, including recognition of qualifications and the transfer of credits;
- 7) share of information on recent developments, policies, new trends or innovative practices related to the cooperative activities carried out pursuant this agreement
- 8) exchange and loans of equipment and materials
- 9) exchanges of experience and good practices, pooling resources and e-based material in the areas of cooperative activities;
- 10) demonstrations of technologies and applications development;
- 11) visits and exchanges of scientists, technical experts, academics and post-graduate students;
- 12) financial support for the mobility of professionals (including new graduates and professionals-in-training) who want to undertake short duration studies, or training programmes to develop their expertise, in areas of specific relevance to the Ecuador/Canada relationship, which would be identified by the Parties;
- 13) financial support to an Alumni Association involving students who have participated in exchanges implemented by the Ecuador/Canada relationship; this Alumni Association may be run by one or more organisations that the Parties shall jointly designate; and
- 14) other forms of cooperative activities decide in writing by the parties.

Article 7

Coordination and Facilitation of Cooperative Activities

1. Each Party shall designate one or more coordinating agents to coordinate and facilitate, on its behalf, cooperative activities carried out under this Agreement. Each Party shall notify the other Party of the institution(s) that shall act as their respective coordinating agents and designate a single point of contact for communications relating to matters covered by this Agreement. The tasks of the coordinating agents may comprise:
 - (a) deciding the rules and procedures for the presentation of proposals including the preparation of common guidelines for applicants,
 - (b) establishing the timetable for publication of calls for proposals, submission and selection of proposals,
 - (c) providing information on activities under this agreement and their implementation,
 - (d) appointing academic advisors and experts, including for independent appraisal of proposals,
 - (e) recommending to the appropriate authorities of each Party which projects to finance,
 - (f) providing financial management,
 - (g) promoting a collaborative approach to monitoring and evaluation.
2. The Parties, through their coordinating agents, shall establish a Joint Committee for Cooperation on Higher Education, Training, Science,

- Technology and Innovation, hereinafter referred to as the “Joint Committee”, which shall establish its own rules of procedure. The Parties shall each designate a co-chairperson and an equal number of representatives to sit on the Joint Committee, including representatives of government, academia and the private sector.
3. The functions of the Joint Committee shall be to:
 - (a) promote and oversee the different areas of cooperative activities;
 - (b) identify among the forms of cooperative activities which are priority forms of cooperative activities;
 - (c) develop work plans to stimulate research and development, including the pooling of projects which would be of mutual benefit and complementary;
 - (d) review the cooperation envisaged under this Agreement;
 - (e) report to the Parties on the level, status and effectiveness of the cooperation in accordance with the objectives and principles of this Agreement;
 - (f) develop guidelines which the cooperating entities should consider, as appropriate, relevant to the implementation of this Agreement; and
 - (g) consider requests from cooperating entities to mediate disagreements related to cooperative activities undertaken pursuant to this Agreement.
 4. The Parties may jointly designate other functions for the Joint Committee.
 5. The Joint Committee shall endeavour the form, location and frequency of meetings; with such meetings being held alternately in Ecuador and in Canada.
 6. Decisions of the Joint Committee shall be reached by consensus. Minutes shall be agreed upon by those persons selected from each side to chair the meeting jointly, and shall, together with the report, be made available to appropriate Minister-level officials of each Party.
 7. Costs incurred by or on behalf of the Joint Committee shall be met by the Party to whom the respective member who has incurred the cost is responsible. Costs, other than those of travel and subsistence, that are directly associated with meetings of the Joint Committee, shall be met by the host Party.
 8. As a rule, Ecuador will provide support (including scholarships) for the use of Ecuadorian project partners; Canada will provide support for Canadian project partners. Both parties shall make funds available for purchasing services to ensure optimal implementation of the Agreement; in particular the Parties may have recourse to experts; may organise seminars, colloquia or other meetings of experts, conduct evaluations, produce publications or disseminate related information.
 9. Parties may engage in cooperative activities through implementing protocols. Cooperating entities may carry out cooperative activities through the conclusion of contracts or inter-institutional instruments, which may describe the nature and duration of cooperation, funding, allocation of costs and other relevant matters.

Article 8

Monitoring and evaluation

Cooperation shall be monitored and evaluated as appropriate on a cooperative basis thus permitting, as necessary, the reorientation of the cooperative activities in the light of any needs or opportunities becoming apparent in the course of their implementation.

Article 9

Availability of Resources

1. Cooperation shall be subject to the availability of funds and to the applicable laws and regulations, policies and programmes of Ecuador and Canada. Financing will be on the basis of an overall matching of funds between the Parties. The Parties shall attempt to offer Programme activities of comparable benefit and scope.
2. Each Party may employ mechanisms to provide funding for the direct benefit of:
 - Ecuador, its own citizens and permanent residents as defined by Ecuadorian law,
 - Canada, its own citizens and permanent residents as defined by Canadian law.
3. Cooperation may receive the support of international funding, where available.

Article 10

Personnel, Students, Material, Information and Equipment

Each Party shall take all reasonable steps and use its best efforts to facilitate entry to and exit from its territory of personnel, students, material, information and equipment of the other Party engaged in or used in cooperation under this Agreement in accordance with their respective laws and regulations.

Article 11

Use and Dissemination of Information of a Confidential Nature

1. Information transmitted or created under this Agreement which a cooperating entity considers to be of a confidential nature should be clearly defined and identified as such through appropriate marking or otherwise.
2. Cooperating entities should protect information covered by this Article in accordance with the domestic law applicable to the cooperating entity receiving the information.
3. Subject to the domestic law applicable to the cooperating entity receiving the information of a confidential nature, that cooperating entity should not divulge or transmit such information to a third party not directly involved with the implementation of this Agreement without the written permission of the cooperating entity that provided the information.

4. If a cooperating entity is unable to guarantee that it will not divulge such information covered by this Article, or if it has reason to believe that it will be unable to do so, it should immediately notify the other cooperating entities that are likely to be affected and these cooperating entities should consult to identify an appropriate solution.

Article 12

Claims

1. Each Party shall waive all claims it may have against the other Party based on damage arising out of the implementation of this Agreement.
2. The Parties do not waive claims related to intellectual property.

Article 13

Other agreements

1. This Agreement is without prejudice to cooperation which may be taken pursuant to other agreements between the Parties.
2. This Agreement is without prejudice to existing or future bilateral agreements between Ecuador and individual provinces and territories of Canada in the fields covered herein.

Article 14

Dispute Settlement

1. The Parties shall endeavour, in good faith, to resolve any dispute between them arising from the interpretation or implementation of this Agreement amicably, through diplomatic consultations. Consultations shall take place as soon as reasonably practicable under the circumstances.
2. If a dispute arising from the implementation of this Agreement cannot be resolved through consultations within a reasonable time, the Parties will refer such dispute to a jointly accepted dispute settlement mechanism.

Article 15

Territorial application of this Agreement

This Agreement shall apply, on the one hand, to the territory of Ecuador and, on the other hand, to the territory of Canada.

Article 16

Final clauses

1. Each Party shall notify the other in writing of its consent to be bound by this Agreement. This Agreement shall enter into force on the first day of the month following the date on which the last Party shall have so notified the other.
2. This Agreement shall remain in force for an initial period of **five years**. It shall automatically be renewed for subsequent periods of five years, unless either Party notifies the other Party in writing of its intention not to renew the Agreement, at least ninety days prior to its expiry date.

3. This Agreement may be amended by mutual written agreement of the Parties. Amendments or extensions shall be in writing and shall enter into force on a date determined by the Parties.
4. This Agreement may be terminated at any time by either Party upon **six months** written notice. The expiration or termination of this Agreement shall not affect the validity or duration of any implementing protocol made under it.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Through this research project a lot of information has been presented to explain the process of change that the world is going through towards Higher Education and Cooperation Agreements. Quality and Innovation are the pillars that boost society to development. The conclusions that have arisen from this project are:

1. UNESCO considers that countries and especially higher education institutions have a social responsibility to help reduce the gap in development between developed and developing countries. Increasing the transfer of knowledge and encouraging brain circulation while avoiding brain drain are among the strategies countries can use to improve development. UNESCO is looking for countries to develop more joint research initiatives and to promote student and faculty mobility with the purpose of developing bilateral, multilateral, regional and global cooperation and integration. Internationalization is among the strategies that universities have to bring an international dimension into teaching, learning and research. Internationalization can help universities to improve the quality of education and to promote expansion in the international arena thus meeting requirements of efficiency and effectiveness in a global context.
2. The Bologna process has already a few years of implementation and since its inception has promoted the removal of barriers in European education in the pursuit of a common system of education. Erasmus program which is part of the Bologna process has proven to be one of the most successful programs in mobility helping to a better European integration. It is important to mention that is not an easy process to welcome and is not perfect but it has not proven to be impossible to reach and can always be improved.

Student mobility is a key instrument to respond to new challenges and trends in the international community. Mobility supports personal and professional development through the opportunity of sharing with different cultures in a non familiar environment. It helps to be more tolerant of the different realities that exist in the world and strengthens the bonds and relationships within people of different countries.

3. Both countries have an extensive program of scholarships and financial aid for their students to have an international experience. The Prometeo program by Ecuador that promotes researchers mobility to conduct research projects is very attractive for various scientific sectors and this kind of initiatives led to the search for the development of knowledge in the country. On the other hand, Canada has always been known for their investment in education and that is why it has several programs for the development and training of leaders among the region such as the Emerging Leader of the Americas Program and the Sauvé Scholars Program, among others.

4. Ecuador is going through a deep change in their whole education system especially the higher education sector. These changes are transforming the way knowledge is being transmitted in the classroom, thus to obtain the best results in education. An academic agreement could be a great opportunity for Ecuador to get good examples of quality in education through Canadian higher education system which is one of the best. This is the reason why there are a lot of international students in their higher education institutions. Canada being aware that internationalization is important for the development of the driven-knowledge economy is willing to invite more students from different parts of the world. There are similarities between both Canadian and Ecuadorian education system. Primary and secondary education system has equivalent duration in years of education and the types of certificates obtained at the completion of studies are the same to be eligible for higher education.

Recommendations

1. Academic and Scientific approaches are both wide areas to cover in just one agreement. It is recommendable to take them individually to obtain the most of the benefits from them and make all the goals clear and concise.
2. The CEAACES (2013) is set to deliver a new report about the evaluation and accreditation of the higher education institutions in November of 2013. This new report may change the categorization of the universities presented in this research project therefore it is important to take this changes into consideration before considering adopting this academic and scientific agreement proposal. Before Ecuadorian universities take steps toward internationalization it is important for them to develop an international action plan where it is define all goals they want to achieve as institutions. Without this plan, the internationalization process of the universities could fail and instead of bringing benefits to the country it would harm the relationship with Canada and other countries interested in promote academic cooperation agreements with Ecuador.
3. To appoint a national commission to evaluate the possibility of the establishment of the academic and scientific agreement between Ecuador and Canada to benefit both academic and scientific sectors. The two countries share similarities in their education system and in the case of Ecuador it would be of great benefit for the development of its higher education system while Canada can achieve its goals in the internationalization of the universities and attract international students.

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