

Part 1

*Issues, Opportunities and Challenges for the
Internationalization of Teacher Training in
a Globalized, Multicultural and Connected World*

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Chapter 1: Origin, Foundations, Objectives, and Original Aspects of the PEERS Program Linking Research and Training in Internationalization of Teacher Education

Abstract

The PEERS program proposes international exchanges adapted to the context of teacher training institutions wishing to take advantage of internationalization in order to link training, research, and practice. PEERS enables international groups of students (6–8) and lecturers-researchers (2) from two partner institutions to carry out research and innovation (R&I) projects in connection with professional practice environments. Collaborative work is carried out remotely using Web 2.0 resources and face-to-face sessions during two one-week visits to partner institutions. For the students, this approach aims to develop skills in intercultural management and distance collaboration. It also fosters the emergence of a culture of continuous improvement in their professional activities. For lecturers-researchers, PEERS offers a new way of articulating research and training, as well as supporting the development of international networks, and broadening research experience.

1. Introduction

At this moment, at the beginning of the twenty-first century, profound societal transformations are affecting the entire planet. These are characterized notably by the increase and diversification of international migrations, the exponential expansion of the flow of information worldwide

due to the development of Information and Communication Technology (ICT), the strengthening of product trade on a global scale, and the increase in financial transactions without borders. Throughout the history of humanity, we have never known such socioeconomic interconnection across the globe. This phenomenon of interdependent economies and the expansion of human interactions in a connected world has become known as “globalization.” The term has become a catch-all but should be properly defined, as indicated by Bernard Charlot (2014). Charlot quotes the Director of Development Policy at the World Bank to give a definition of globalization that he summarizes as: “*the increasing integration of the economies and societies across the world, due to the greater flow of goods, services, capital, technology, and ideas*” (Dollar cited by Charlot 2014, p. 479). Others, like David Held & al. (1999), provide a complementary definition that captures the transformational and multidimensional aspects of the phenomenon:

(Globalization is) [...] a process (or set of processes) which embodies a transformation in the spatial organization of social relations and transactions – assessed in terms of their extensity, intensity, velocity and impact – generating transcontinental or interregional flows and networks of activity, interaction, and the exercise of power (Held & al., p. 16).

The term “globalization” also describes the unprecedented high degree of interconnection and integration of human activities, of which the cultural impact is undeniable:

We now live in a universe where the link between the local and the global is an inescapable fact of the present. The cultural consequences of this situation cannot be underestimated (Abélès, 2008, p. 133).

Indeed, the socioeconomic transformations resulting from globalization influence our social interactions and in some cases tend to weaken feelings of belonging to states and national cultures, as discussed by Hirst and Thompson (1996):

It is widely asserted that we live in an era in which the greater part of social life is determined by global processes, in which national cultures, national economies,

and national borders are dissolving. Central to this perception is the notion of a rapid and recent process of economic globalization (p. 1).

Globalization impacts upon our lives and our societies, and its consequences are both positive and negative. On the one hand, globalization offers opportunities for positive change thanks to the high-speed transfer of technologies on a global scale. Information now circulates rapidly, helping, for example, to accelerate the growth of democratic movements where they are beginning to take hold. Human rights abuses can be brought to light and exposed to the entire world, embarrassing totalitarian governments and, with time, reducing their hold over the populations who are their victims. Another clear consequence has been the incredible acceleration of economic trade. Some of the poorest peoples have been able to seize the opportunities of a globalized world with and improve their living conditions. Over the last few decades, millions of people have thus been able to escape from poverty in the nation-continent of China and India. Globalization may contribute to bringing people together, and to strengthen solidarity, for example during large-scale natural catastrophes where victims are aided by non-governmental organizations and charities who work in every continent. These influential organizations are growing in power and are unaffected by borders. Little by little, a collective conscience is emerging of belonging to one planet. We are becoming citizens of the world, aware that what affects our neighbors, be they near or far, is likely to affect us too one day. Globalization is not of course only a phenomenon of inclusion, interdependence, and an idea of the world as a collection of idyllic economic, cultural and supportive global exchanges. From another point of view, it is also unfortunately characterized by phenomena of exclusion across regions, nations, or even continents such as Africa and Latin America, to the benefit of parts of the world that are already strong and prosperous. The continent of North America, the European Union, Japan, and the “Asian Tigers” have increased their trade and have been strengthened in a globalized world (Phtiaka, 2002; Michalet, 2004, 2007; Moreau Desfarges, 2016). The effects of globalization are not positive for all: in certain parts of the world, not uniquely in the southern hemisphere,

globalization leads to offshoring, employment downturns, poverty, and violence. In certain cases, under the pressure of multinationals attempting to dictate their behavior, or world powers interfering with the internal affairs of other nations, the governments of some countries are persuaded to take measures against their own citizens, sometimes even by cutting investment in education.

Globalization therefore has both a benign and a shadowy side in all areas of human activity, whether in the economy and employment, health, communications, social interactions, or public policies. Education is no exception to this rule of both risk and opportunity. As educators, we have a duty to help minimize the risks, and to seize the opportunities offered to us by globalization. This means working on improving the living conditions of the inhabitants of a globalized, multicultural, and connected world, with particular focus on the younger generation, and to contribute to putting a quality education within the reach of everyone.

It is within this context that international exchanges in the areas of training, research, and services have done nothing but grow in higher education since the middle of the twentieth century. The developments in student mobility have been stunning over the last decades, in particular in Europe with the Erasmus+ program.

2. Internationalizing the Training of Teachers in a Changing Globalized World: the Origins of the PEERS Program

The internationalization of higher education has not escaped the phenomenon of globalization briefly described in our introduction, as outlined by Altbach, Reisberg and Rumbley (2009) in their report to the UNESCO World Conference on Higher Education, “Trends in Global Higher Education: Tracking an Academic Revolution”:

Globalization, a key reality in the 21st century, has already profoundly influenced higher education. We define globalization as the reality shaped by an increasingly integrated world economy, new information and communications technology (ICT), the emergence of an international knowledge network, the role of the English language, and other forces beyond the control of academic institutions. Internationalization is defined as the variety of policies and programs that universities and governments implement to respond to globalization. These typically include sending students to study abroad, setting up a branch campus overseas, or engaging in some type of inter-institutional partnership (p. 5).

For these authors, the internationalization of higher education is both an integral part of the phenomenon of globalization, and is helping develop solutions to the flow of knowledge and the exchanges of researchers and students in a globalized world.

In Europe, the Bologna Accords, signed by forty-five European state members, have considerably contributed to harmonizing and internationalizing higher education, helping with the mobility of students and researchers. At the same time, the European Union (EU) has developed “key competences”, a set of: “*knowledge, skills, and attitudes that will help learners find personal fulfillment and, later in life, find work and take part in society.*”¹ These key competences cover communication in one’s mother tongue, foreign language proficiency, digital skills, and basic skills in math and science, as well as “horizontal” competences such as learning to learn, civic and social responsibility, initiative and entrepreneurship, cultural awareness, and creativity. It is in this context that cross-border mobility and co-operation are currently seeing enormous growth across Europe. The objective is ambitious: with the Erasmus+ program, the European Council has decided to increase by 20 % the number of students studying abroad by 2020².

In Switzerland, participation in EU training programs represents one of the priorities of the international strategy for training and research. The Swiss Secretary of State for Training, Research and Innovation (SEFRI), emphatically supports these international exchanges: “*Thousands of*

1 <http://ec.europa.eu/education/policy/school/competences_fr.htm>.

2 <http://ec.europa.eu/education/policy/higher-education/mobility-cbc_fr.htm>.

*young Swiss students have been able to enrich their training in recent years with a placement abroad, and thousands of young foreigners have been able to undertake a training placement in Switzerland. As of 2013, mobility programs have opened the door to other European countries for more than 7000 young Swiss people*³. At the present time, following the positive approval of the initiative against mass immigration on February 9, 2014, negotiations for Swiss membership of the Erasmus+ program have been suspended, and Switzerland is now considered to be a third country by the EU. However, the Swiss authorities wish to maintain their alignment with the European goals regarding mobility: the “Swiss Universities’ Strategic Plan 2017–2020”⁴ adopted by the body representing university rectors on, December 10, 2014, also has a 20 % increase in student mobility as a target by 2020: “*The promotion of the mobility of students is one of the principal objects of the Bologna Process. It has been decided, during the ministerial conference of 2009, that at least 20 % of students should be mobile by 2020*” (p. 17).

To try to meet this objective, a specific program has been put in place: the Swiss-European Mobility Program (SEMP), which offers conditions similar to Erasmus+ for the exchange of students and teachers.

Teacher training is also undergoing profound changes in line with the “universitarization” of institutions. Vanhulst, Petitpierre and Macherel (2012) highlight this in the introduction to the strategic plan 2012–17 of the University of Teacher Education of State of Vaud (HEP Vaud): “*The universitarization of teacher training is now clearly evident in western countries*” (p. 11). At the same time, these teacher training institutions, like other university institutions, are also now concerned with the internationalization of their training offers, and their support for the development of research and innovation.

In this environment of change, the HEP Vaud, a teacher training college in Lausanne, Switzerland, wishes to actively promote international

3 <<http://www.sbf.admin.ch/themen/01369/01689/index.html?lang=fr>>.

4 <https://www.swissuniversities.ch/fileadmin/swissuniversities/Dokumente/Kammern/Kammer_UH/Strategische_Planung_17-20_CRUS_franc%CC%A7ais-210115.pdf>.

exchanges. Its action plan for 2012–17 contains a strategic goal entitled “*Opening up more to the outside world*”. This is introduced as follows:

We intend to develop international relationships and the mobility of teachers and students to ensure that the training and research programs of the HEP Vaud are enriched, to promote its research output, and to reinforce its presence in the international arena (Vanhulst, Petitpierre & Macherel, 2012, p. 44).

In this spirit, the HEP Vaud integrated into its training offer a program of semesters abroad supported by the SEMP program, but after a few years it became apparent that the institution would not meet its target of 20 % student mobility by 2020 with this single program alone. During the first decade of the century, few student teachers were willing to undertake a placement abroad for a semester. This observation triggered discussion about diversifying the mobility offer, and about new forms of exchange that would be different from traditional semesters abroad, and more adapted to the present challenges of teacher training. This resulted in the creation by Gilles, Gutmann, and Tedesco (2012a, 2012b) of the PEERS program (the *Projets d’Etudiants et d’Enseignants-chercheurs en Réseaux Sociaux*, or Student and Teacher-Researchers Social Networks Projects), which has been in place since 2011–12 at the HEP Vaud in collaboration with its network of partner institutions. As we will see in the following sections, the PEERS program represents a real innovation regarding international exchanges within the domain of the training of teachers.

We will describe the key aspects of the program in the rest of this chapter, which begins the introductory part of our collective book “*Linking Research and Training in Internationalization of Teacher Education with the PEERS Program: Issues, Case Studies and Perspectives*”. With two others introductory chapters this chapter is part of Part 1, “*Issues, Opportunities, and Challenges for the Internationalization of Teacher Training in a Globalized, Multicultural, and Connected World*”. Concrete examples of PEERS projects will then be presented in the six chapters of Part 2, “*Case Studies and Lessons Learned from the PEERS Project in Southern Countries*”, and in the next seven chapters of Part 3, “*Results of Research-Oriented PEERS Projects*”. Finally, to conclude, we will return to the innovative

characteristics in Part 4 with the last chapter, “The PEERS Program: a New Way to Internationalize Teacher Training”.

3. Characteristics and Original Aspects of the PEERS Program

The PEERS program was born out of a reflection upon new forms of the internationalization of teacher training, taking into account a series of fundamental challenges that will be detailed in the following section of this chapter. PEERS aims to offer an original and coherent institutional framework to support the mobility and international projects of both teachers and students within the context of teacher training at a university level.

From a very pragmatic point of view, it equally aims to counteract the difficulties that future teachers meet when they wish to benefit from an international experience during their training journey, but experience real difficulties in moving away from their environment for several months and separating themselves from their training institution program (traditional studies and placements). This is the reason why we have preferred a concept of program internationalization relying on the one hand upon two short one-week placements with a partner institution during periods of the academic year when teaching is suspended, and on the other upon remote collaborations between these placements. The program as a whole is based upon the completion of international collaborative projects focused on Research and Innovation (R&I).

In its foundations, PEERS is inspired by Dewey (1897, 1899) and Kilpatrick’s (1918) project method and influenced by the development of projects approach in vocational education (Knoll, 1997) and also by contemporary adaptations of the method especially in the context of higher education (Pecore, 2015), with the particularity that here the trainer, the teacher-researcher who is supervising the students, is an integral part of an international R&I project group. PEERS encourages trainee teachers to experience a degree of autonomy that may vary from one project to

another, but which always remains very high. The autonomy and the collaborative atmosphere apparent in these R&I educational projects, where everyone is a stakeholder, is a strong motivator. In the majority of cases groups are made up of six students and two partner institutions, with three students from each institution (but this can be as many as six), supervised by two teacher-researchers, one from each institution.

We also wanted to reduce as much as possible the cost of the two one-week placements in the partner institutions by having the rule that the members of the international group stay with one another. Most of the time participants pair up naturally: one student welcomes another student from a partner institution at his home. Teacher-researchers also abide by this rule and it is recommended that they host one other in their own homes. Besides reinforcing links within the international group, this practice naturally encourages the development of intercultural competencies.

At the University of Teacher Education of State of Vaud (HEP Vaud) where the PEERS program was created, every academic year since 2011–12 a series of international groups, most often made up of eight people, have formed in this way following the initiative of pairs of teacher-researchers who are working in similar fields of research. In most cases, teacher-researchers know each other already through their work and exchanges (Gilles, Gutmann & Tedesco, 2012a).

With regard to the running of a PEERS project, during the preparation phase, the very first task for the teacher-researchers is to establish an R&I topic in education and to inform their students of the possibility of participating in an international project linked to this topic within the framework of the PEERS program. Each teacher-researcher then makes a selection among the candidates.

Once the international group has been formed, the first contact between members is made with the help of available Web 2.0 tools (social networks, email, instant messaging, etc.). During this second stage the initial discussions usually take place by videoconferencing, with the goal of getting to know one another and to outline the topic. This is the time when the R&I project is defined and analyzed. The international group then takes time to clarify research questions and hypotheses before drafting objectives, methods, and the work schedule. All kinds of questions relating

to the management of the project are raised at this stage and must be resolved through remote collaborative work with the help of ICT, with all the intercultural complexity of these interactions, sometimes in a second language, and this is why English is therefore preferred. A record of decisions and activities is kept in shared online storage. This phase of the project is a kind of “team building” and analysis stage.

The third stage is the first one-week placement with the partner institution. This placement will have been prepared previously through remote discussions. The program for the week includes activities linked with the project, but also activities for learning about the education and training system (visits to schools, training centers, and places connected with the training of students). Cultural visits and recreational activities are also proposed outside of the work program. This first face-to-face week is obviously very productive from the point of view of project progress, but also with regard to learning and intercultural exchange.

Following this placement with the partner institution, the project is generally implemented in the field during the fourth stage and data collection can begin based on what has been planned. The collaboration with the international group does not stop there however and continues with the help of ICT. The PEERS program thus involves an alternation between periods of face-to-face work with periods of online exchange, and therefore the tools of Web 2.0 are an absolute necessity for these real-life situations of distance collaboration.

The fifth stage is the second one-week placement, which takes place during the second semester of the academic year, when the partners who had been invited in the fall become hosts in their turn to the other members of the international group. As with the first placement, the program for the week is prepared in advance and is composed of three elements: activities linked with the current project, sociocultural activities, and recreational activities. Generally, discussions revolve around the analysis of data and the structure of a report, or even an academic paper.

After this second placement comes the sixth stage, the final period of remote collaboration. This involves the group completing the analysis of data and collectively drafting the final publication that will present the

results of the PEERS project. The table below summarizes the stages in creating a PEERS project.

Table 1. Stages in Creating a Project Within the Framework of the PEERS Program.

| | <i>Stage</i> | <i>Description</i> |
|----|----------------------------|---|
| 1. | Preparation | Before the beginning of the academic year, two teacher-researchers from partner institutions agree on a theme and define a student audience. These are then contacted and a selection is made. |
| 2. | Team building and analysis | At the beginning of the academic year the students from the international group get to know one another with the help of ICT and Web 2.0 tools. They discuss the theme, refining this with the teacher-researchers, and prepare the first placement. |
| 3. | First one-week placement | The first placement in the partner institution usually occurs at the end of October. Three kinds of activity are organized: work on the content of the project, sociocultural activities, and recreational activities outside of work. |
| 4. | Remote collaboration | Between the end of October and the second placement collaboration is online with the help of ICT and Web 2.0 tools. Activities are organized according to the objectives and the work schedule. |
| 5. | Second one-week placement | A second placement during the spring semester enables the international group to continue their collaboration face-to-face. As with the first placement, three kinds of activities are organized with a focus placed on the analysis of data collected, and the drafting of the structure for the final report. |
| 6. | Remote analysis of results | The remote collaboration aims to present the report for the end of the project in its definitive form. When time allows: preparation of presentations and communications, and ideally plans to publish an academic paper. |

An opportunity to share results and practices has been organized at the end of the academic year from the very first session of the PEERS program in 2011–12. This event, called the “PEERS Summer Symposium”, occurred for the first time in June 2012 during the 17th Congress of the World Association for Educational Research (WAER) at the University of Reims in France (Gilles, Gutmann & Tedesco, 2012b). In following years, the

PEERS Summer Symposium was organized in different countries: in July 2013 in the United States at the San Diego State University, in July 2014 in Belgium in partnership with SwissCore⁵ in Brussels, in June-July 2015 in Switzerland at the HEP Vaud in Lausanne, and in May-June 2016 in Turkey as part of the 18th Congress of the WAER at Anadolu University in Eskisehir. On each occasion, these PEERS Summer Symposiums have allowed teacher-researchers interested in this approach to share their results and to reflect on the supervision and management of the international groups at the heart of the PEERS program.

Since the academic year 2011–12, no fewer than 81 PEERS projects have taken place following the initiative of the HEP Vaud. Up until 2015–16, the HEP Vaud has always been a partner in each project. From 2011 until 2017, more than 480 students have been involved in the PEERS program. The table below shows the evolution of PEERS partners since the HEP Vaud began the program in 2011–12.

Table 2. The Evolution of PEERS Partners 2011–2017.

| <i>Partner Institutions of the HEP Vaud, Switzerland</i> | <i>Partner Countries</i> |
|---|---|
| <u>In 2011–12, 4 PEERS projects with 3 institutions in 2 countries:</u> Humboldt State University (HSU), San Diego State University (SDSU), Universidad Simón I. Patiño (USIP). | Bolivia and USA. |
| <u>In 2012–13, 8 PEERS projects with 6 institutions in 5 countries:</u> Ecole Normale Supérieure de Koudougou (ENSK), Humboldt State University (HSU), Lesley University (LU), National Institute of Education (NIE), San Diego State University (SDSU), Universidad Simón I. Patiño (USIP). | Bolivia, Burkina Faso, Singapore and USA. |

5 SwissCore is the Swiss Contact Office for European Research Innovation and Education. It acts as a bridge between Swiss and European knowledge institutions and supports Swiss participation in European knowledge programs (<www.swisscore.org>).

| <i>Partner Institutions of the HEP Vaud, Switzerland</i> | <i>Partner Countries</i> |
|--|--|
| <p><u>In 2013–14, 9 PEERS projects with 9 institutions in 7 countries:</u> Ecole Normale Supérieure d’Antananarivo (ENSA), Haute École de Liège, Catégorie Pédagogique (HEL-P), Humboldt State University (HSU), Lesley University (LU), National Institute of Education (NIE), San Diego State University (SDSU), Universidade Pedagógica de Maputo (UPM), Universidad Simón I. Patiño (USIP), Universitat Ramon Llull – Blanquerna (URL-B).</p> | <p>Belgium, Bolivia, Spain, Madagascar, Mozambique, Singapore and USA.</p> |
| <p><u>In 2014–15, 15 PEERS projects with 13 institutions in 13 countries:</u> Ecole Normale Supérieure d’Antananarivo (ENSA), Ecole Normale Supérieure de Koudougou (ENSK), Ecole Supérieure du Professorat et de l’Éducation de l’Université de Bordeaux (ESPE UB), Haute École de Liège, Catégorie Pédagogique (HEL-P), Humboldt State University (HSU), National Institute of Education (NIE), San Diego State University (SDSU), Universidade Pedagógica de Maputo (UPM), Universidad Simón I. Patiño (USIP), Universitat Blanquerna Ramon Llull (UBRL), Université Cadi Ayyad (UCA), University College South Denmark (UC SYD), University of Eastern Finland (UEF Joensuu).</p> | <p>Belgium, Bolivia, Burkina Faso, Spain, Finland, France, Ireland, Madagascar, Morocco, Mozambique, Singapore and USA.</p> |
| <p><u>In 2015–16, 19 PEERS projects with 17 institutions in 13 countries:</u> Dublin City University (DCU), Ecole Normale Supérieure d’Antananarivo (ENSA), Ecole Supérieure du Professorat et de l’Éducation de l’Université de Bordeaux (ESPE UB), Ecole Supérieure du Professorat et de l’Éducation de Versailles (ESPE Versailles), Haute École de Liège, Catégorie Pédagogique (HEL-P), Haute École Galilée (ISPG), Humboldt State University (HSU), Laurea University of Applied Sciences (LAUREA UAS), Universidade Pedagógica de Maputo (UPM), Universidad Simón I. Patiño (USIP), Universitat Blanquerna Ramon Llull (UBRL), Université Cadi Ayyad (UCA), Université de Caen-Normandie (UNICAEN), Université du Québec à Montréal (UQAM), Université de Tirana (UNITIR), University College South Denmark (UC SYD), University of Eastern Finland (UEF Joensuu).</p> | <p>Albania, Belgium, Bolivia, Canada, Denmark, Spain, Finland, France, Ireland, Madagascar, Morocco, Mozambique and USA.</p> |

| <i>Partner Institutions of the HEP Vaud, Switzerland</i> | <i>Partner Countries</i> |
|---|--|
| <p><u>In 2016–17, 25 PEERS projects with 15 institutions in 11 countries:</u> Dublin City University (DCU), Ecole Supérieure du Professorat et de l'Éducation de Bretagne (ESPE Bretagne), Ecole Supérieure du Professorat et de l'Éducation de Versailles (ESPE Versailles), Ecole Supérieure du Professorat et de l'Éducation d'Aquitaine (ESPE Aquitaine), Haute École de Liège, Catégorie Pédagogique (HEL-P), Humboldt State University (HSU), SUPSI Ticino, Universidade Pedagógica de Maputo (UPM), Universitat Blanquerna Ramon Llull (UBRL), Université Alexandru Ioan Cuza, Iasi (UAIC Iasi), Université de Caen-Normandie (UNICAEN), Université du Québec à Montréal (UQAM), Université Catholique de Louvain-La-Neuve (UCL), University College South Denmark (UC SYD), Winchester University.</p> | <p>Belgium, Canada, Denmark, Spain, France, Great Britain, Ireland, Mozambique, Romania, Switzerland and USA.</p> |

We should also highlight the great diversity of themes covered. These have included, for example, the “Lesson Study” approach in mathematics, the comparison between different sports in Physical Education, multicultural education, bilingualism in core teaching, Freinet’s pedagogy, the grading and assessment of the transfer of learning during training, musical pedagogy and psychology, education for sustainable development, and the role of the teaching of science on the learning of marginalized students, etc.

Aside from the various reports produced from each project, the PEERS program has also resulted in a number of different publications and communications (Gilles, Gutmann & Tedesco, 2012a, 2012b; Gilles, 2014; Gilles & Soldevila, 2014a, 2014b; Gilles, 2015; Gilles & Soldevila, 2016; Chochard, Gilles & Rupp-Nantel, 2016), which have led to interest from European and North American associations who are active in the domain of international exchanges, such as ERACON, Comenius, NETT, and CBIE.

4. Six Basic Challenges for the PEERS Program

For some twenty years, the internationalization of higher education has become a field of study in its own right for researchers and practitioners seeking to analyze, explain, and propose internationalization strategies within institutions (Bohm, Davis, Meares & Pearce, 2002; Agarwal, Said, Schoole, Sirozie & de Wit, 2007; Townsend & Bates, 2007; Cornelius, 2012).

The world of teacher training has not escaped from this trend, notably due to a growing awareness that teachers are the actors at the center of a high quality education for all who must encourage children and adolescents to gain the essential knowledge and skills for social and economic integration in a globalized and changing society (Mahon, 2010; Sieber & Mantel, 2012; Leutwyler, 2014).

4.1 Developing the Intercultural Competencies of Future Teachers

The effects of globalization put back at the forefront the question of the intercultural competencies of future teachers (Pease, 1993; Davis, 1997; Kitsantas & Meyers, 2002; McCormack, 2004; Lewis & Niesenbaum, 2005; Reyes & Quezada, 2010). In a European context, Dooly and Villanueva (2006) have this to say on the subject:

The European Union has recognized the need for promoting social and political change through education. Special emphasis has been placed on the role of schools in personal and human development, along with the need for greater understanding of the diversity, which makes up the European Union and throughout the world. This means that teachers are now expected to involve learners in the process of acquiring knowledge of their own culture(s) as well as other cultures (p. 223).

In the same vein, following a large review of the literature aiming to identify the advantages offered by international exchanges during teacher training, Leutwyler (2014) indicates that it is commonly accepted that three facets of intercultural competencies of future teachers are affected:

knowledge concerned with an understanding of the influence of culture on teaching, an awareness of the cultural diversity within the world of education, and finally the feeling of personal effectiveness when managing a multicultural class. Leutwyler (*op. cit.*, p. 112) also notes that some studies show a greater motivation to teach after an international exchange. Some positive effects on the competencies of future teachers with regards to the intercultural management of classes have also been observed in the literature (Deardorff 2006; Dooly & Villanueva, 2006; Parkes & Griffiths, 2008; Kissock & Richardson (2010); Quezada, 2010). As with most international exchange programs, the PEERS program offers the possibility for trainee teachers to develop their intercultural competencies, which will be particularly useful when they are faced with managing groups of multicultural learners.

4.2 Training Future Teachers to Work Collaboratively at a Distance Through Real-Life Situations in a Globalized Connected World

Another facet of the globalized world in which we live is the omnipresence of ICT in the activities of citizens from the majority of developed or emerging countries, or even in developing countries when the telecommunications infrastructures and access to the internet allow for this. The youngest among us who were born after the digital revolution at the end of the twentieth century could easily even forget that the advent of digital networks and the web are recent inventions. On the other hand, their older counterparts, who were born and lived before this digital era, have difficulties mastering the codes, and the technical and sociocultural changes in what seems to be a new world. Some feel that they are falling behind the new “plugged in” generation. This turmoil and rapid evolution has an impact on our educative systems that were thought out and organized during the last century. Now, at the beginning of the twenty-first century, teachers are confronted with children and adolescents who are constantly connected “Digital Natives”, as they are termed by Prensky (2001), who claims that there has been a radical change at the heart of student populations:

It is amazing to me how in all the hoopla and debate these days about the decline of education in the US we ignore the most fundamental of its causes. Our students have changed radically. Today's students are no longer the people our educational system was designed to teach [...]. A really big discontinuity has taken place. One might even call it a "singularity" – an event, which changes things so fundamentally that there is absolutely no going back. This so-called "singularity" is the arrival and rapid dissemination of digital technology in the last decades of the 20th century (p. 1).

To learn to effectively teach the young people who have been born during the digital era, we must re-think our approach to the training of future teachers. It is crucial for them to have real-life experiences of collaborative work at a distance and to allow them to develop competencies in this domain so that they become more effective and credible when they are managing pedagogical activities with their "Digital Native" students. Working in a team at a distance with the help of ICT is a strong component of the PEERS program which offers the opportunity of a real-life experience of online collaboration within the framework of a collective research focused project. This aspect of the PEERS program is original and innovative, and distinguishes it from the majority of other international exchange programs.

4.3 Developing a Culture of Continual Improvement of Didactic and Pedagogical Activities Through the Reflective Thinking and the Spirit of Research

The "continuous quality improvement" approach, theorized and put in practice within organizations, as discussed in the work of Edward Deming (1986) deserves, in our opinion, to be discussed and developed within the contexts of training and the practices of trainers and learners. The idea that it is better to adopt processes that generate quality, rather than control assessments after the fact, can be applied to all kinds of activities, including teaching and training. The process of the acquisition and implementation of competencies within the context of learning pathways fits well with a continuous improvement approach when we propose implementing an approach of reflection and self-

evaluation with regard to the quality of knowledge acquired during training and its transfer to professional activities. This approach is in fact commonly practiced in teacher training institutions, when reflective thinking, as outlined by the reflective practice approach, is recommended to teacher trainees (Schön, 1993). These reflective exercises are also recommended by a number of researchers who highlight their importance (Day, 2001; Paquay & Sirota, 2001; Zay, 2001; Wentzel, 2008; Dervent, 2015). Within such a framework, it seems essential to us that student teachers are actively involved in the research of the teacher-researchers who are training them. The position of Sayac (2013) illustrates our view in this regard very well:

The initiation into research proposed to teachers in the context of their initial training is not, in itself, a specific part of training, but it targets the same objective of the development of reflective analysis through placing in parallel or within a co-construction the position of the reflective practitioner and the position of the researcher who we want to initiate the students (p. 3).

In a similar vein, we agree with the position of Schön (1993, p. 25): “*the knowledge from experience in class and at school builds into a spirit of research that develops the exercise of reflective analysis*”. Beyond the initiation into research and the co-construction of new knowledge, by allowing them to participate in an international R&I project, we are reinforcing these training practices during the learning pathways of our students. It is a question of allowing trainee teachers, through the PEERS program, to begin to take the steps of the continuous improvement of their pedagogical and didactic activities based on reflective practices and guided by the spirit of research that they acquire progressively in the course of the project, and of which they are active participants alongside their teacher-researchers within the international group.

Parallel to the aspects that we have just mentioned within the context of student training, the initiative towards internationalization that we are proposing also responds to the needs of our teacher-researchers in teacher-training university institutions.

4.4 Supporting Efforts to Put Research-Training in Place and Build New Relationships Within Practice Through PEERS Projects

In the context of “*universitarization*” of teacher training (Vanhulst & al., 2012), trainers in teacher training institutions have been progressively transformed into teacher-researchers within universities of teacher training. Within institutions that have evolved in the same way as the HEP Vaud, professors are now participating in the building of the knowledge that they are charged with teaching, which brings to the fore the question of the connections between knowledge derived from their research and knowledge derived from teacher practice in the field. Altet (2012) insists upon the importance of the connections between these different forms of knowledge and the construction of the professional identities of trainee teachers. She outlines what we feel is a key concept within the framework of the PEERS program, “Building another relationship to practice through research”:

In this respect, knowledge from research allows one to build another relationship to practice and to develop, through reflection, a cautious attitude, analytical thinking, and a ‘praxis’, that helps one to move away from conventional wisdom (Altet, 2012, p. 40).

By supporting collaborative work between students and teacher-researchers, and at the same time encouraging partnerships with practitioners in the field, PEERS projects contribute to the weaving of new relationships between these categories of actors co-producing knowledge within international groups.

4.5 Offering a Framework for the Development of Competencies for the Management of International Academic Projects for Teacher-Researchers

In a globalized world, the *universitarization* of teacher-training institutions such as the HEP Vaud means that they are also charged with developing international relations more than they did in the past. This

means developing partnerships with other teacher training institutions, notably in the field of research, and encouraging their teacher-researchers to become actively involved with this by instigating or participating in international research projects. The section of the 2012–17 action plan concerned with the strategy “Opening up more to the outside world” thus states:

We intend to develop international relationships and the mobility of teachers and students to ensure the enrichment of HEP Vaud training programs and research, to promote its research and professional output, and to reinforce its presence at the international level (Vanhulst, Petitpierre et Macherel, 2012, p. 44).

Participation in networks and international partnerships is also taken into account with regard to promotions. Teacher-researchers are thus made aware of the importance of developing these research partnerships with colleagues from foreign institutions, and have a close interest in the possibilities offered by exchange and mobility programs that target the academic body. In this context, the PEERS program offers new possibilities that respond to the needs of teacher-researchers: they work on an international project focused on research with a colleague from a partner institution, and considerably develop their skills for managing international R&I projects through concrete experiences during the academic year.

4.6 Promoting International Professional and Research Publications

The ultimate goal of projects led by international groups participating in PEERS programs is to share the results of their research. As contexts differ widely from one project to the next, some teacher-researchers will produce a report where others will go as far as publishing results within an international academic journal. The PEERS program offers a stimulating framework for the sharing of results and for publication, which is fundamental to all researchers. The implementation of a PEERS project allows the ideas and approaches used to be enriched through argument and discussion. The results obtained are also communicated

and then developed and enriched by teacher-researchers from partner institutions to provide material for international publications in professional or research journals. The PEERS program represents an opportunity to add to one’s publication portfolio, which now plays a fundamental role during the different stages of an academic career as teacher-training institutions have become more university-like in their approach.

In terms of effectiveness, traditional international exchange programs of the “one semester abroad” kind do not allow participants to experience the six fundamental challenges that we have just described (4.1–4.6) and which show the richness of the Student and Teacher-Researchers Social Networks Project (PEERS) run since 2011 by the HEP Vaud in Switzerland in partnership with the institutions from its international network.

In synthesis, we have summarized the objectives of the PEERS program with the help of the schema below, distinguishing between those concerning students (teacher trainees), and those concerning the teacher-researchers who train them in a university context.

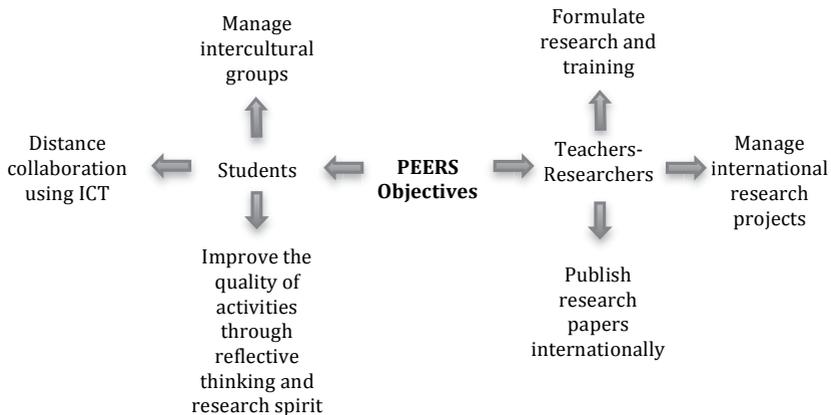


Figure 1. The objectives of the PEERS program (*Projets d’Enseignants-Chercheurs et d’Etudiants en Réseaux Sociaux*, or Student and Teacher-Researchers Social Networks Project) within teacher-training institutions that are becoming university-like in a globalized, multicultural, and connected world.

On the basis of these reflections informed by the accumulated experience of six years (2011–17), we propose the following definition:

The PEERS program proposes international exchanges adapted to the context of teacher training institutions wishing to take advantage of internationalization in order to link training, research, and practice. PEERS is based on the completion of Research and Innovation (R&I) projects during the academic year, during which international groups of professors and students from teacher training partner institutions collaborate remotely as well as during two placements of one week. For the students, the PEERS program aims to develop competencies in distance collaboration with the help of Information and Communication Technology (ICT), the management of intercultural groups, and the continuous improvement of their activities through reflective thinking and the spirit of research. For the professors, the PEERS program aims to better link research and training, to foster opportunities for international publications, and to reinforce their skills in the management of international research projects.

5. Conclusions

The duration of a PEERS program is fixed at one academic year. This allows for the development of Research and Innovation (R&I) projects, which in most cases go through different phases of scientific research, from the formulation of a theoretical framework, questions and hypotheses, through to the drafting of conclusions, the development of data collection instruments, the collection of data itself, and the analysis of results. To experience and complete these stages in the company of teacher-researchers and within an international context is extremely useful for the training of our future teachers. The environment proposed by the PEERS program favors working towards continuous quality

improvement of their professional activities, by guiding them to exercise the reflective practice and research spirit necessary to the success of their professional activities.

Active involvement in “full-scale” R&I projects is also very motivating for the students. In these conditions, the use of Web 2.0 tools occurs in a real-life context where remote collaboration would be impossible without the use of technology. Motivation and the real-life situation accelerate and increase deep learning. The international context and the nature of R&I also allow for the development of team project management skills, and to become familiar with collaborative work online, competencies that are particularly useful in a globalized and connected world in the beginning of the twenty-first century.

All this is supplemented by the traditional intercultural dimension of an international exchange program. During their remote exchanges and the placements with their partners, students become aware of realities that are sometimes quite different to their own, in particular when partners come from developing countries (around one third of the projects). According to Leutwyler (2014), three aspects of intercultural competencies of trainee teachers are affected by international exchange programs: knowledge concerned with an understanding of the influence of culture on teaching, an awareness of the cultural diversity within the world of education, and the feeling of personal effectiveness when managing a multicultural class. These intercultural dimensions are particularly present during social activities included in the one-week placements with the partner. The aspect of mutually providing accommodation reinforces the discovery of the reality of everyday life for “the other”. To help another person discover your region, explain its cultural and socioeconomic particularities, and share moments of friendship are all aspects of the PEERS program that enrich the participants and leave lasting traces on the development of their intercultural competencies.

For teacher-researchers from teacher-training institutions that are becoming university-like, the possibility of developing their collaboration network is one of the possibilities offered by standard mobility programs. However, beyond the discovery of other research horizons, the opportunity to manage an international project involving

trainee teachers and practitioners as well as the chance to publish results with their project partners constitute the particular advantages and innovative aspects of the PEERS program.

It is thus evident that the PEERS program distinguishes itself from other international exchange programs in the world of teacher training. It is situated at the heart of key issues that it tries to connect: support for research and innovation carried out by teacher-researchers, improved understanding of training-research-practice, and the development of international collaborations. All of these efforts undertaken to develop and implement a new form of internationalizing teacher training through the PEERS program have the same goal: to contribute to the improvement of the training of our future teachers at the beginning of the twenty-first century. We harbor the hope that the PEERS program will contribute to the development of competencies within them that will allow them to become more educated and informed people, able to collaborate intelligently and exercise critical thinking in a globalized, multicultural, and connected world.

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Chapter 2: The Building of Europe: A Humanist Undertaking

Abstract

The aim of this chapter is to outline the ways in which the building of Europe has been a profoundly humanist undertaking. We start by describing the extremely difficult situation in Europe in 1950, and then go on to analyze the historic significance of the Monnet-Schuman Declaration, which led to the launch of the European Community in 1952. We give a general summary of how the building of Europe unfolded, showing the degree to which respect for Member States is a cardinal principle of this process and underlining how it gave citizens their freedom. We then take a look at the more specific areas of education, research, and innovation, linking them with the HEP Vaud PEERS program. We end by identifying the major challenges facing the people of Europe.

1. The Situation in Europe in 1950

Until the mid-20th century, war was a major defining factor in Europe. The continent had only seen two periods of prolonged peace between the major powers since the beginning of the 16th century – the first between 1815 and 1854 and the second between 1871 and 1914. The two World Wars that ravaged Europe and the rest of the world in the first half of the 20th century led to the deaths of 70 to 80 million people and left countless wounded. War is also synonymous with the destruction of infrastructure, economic barriers, ruin, the disintegration of the social fabric, the rise

to power of tyrannical regimes, and moral scars. This led the writer Paul Valéry to declare: “We later civilizations [...] we too now know that we are mortal.” And this was written even before Auschwitz and Hiroshima left their indelible mark.

The risk of war and awareness of this were particularly pronounced in the spring of 1950, and indeed the Korean War was to begin at the end of June. When the Second World War ended and the Cold War began, mainland Europe had been divided and had lost power over its destiny. The United States and the Soviet Union had taken charge of Europe and a large proportion of the rest of the world.

Now under U.S. protection, Western Europe had to contend with different models for structuring international relations. First, there was the hegemonic model. Historically speaking, attempts by one European power to obtain hegemony over all the others had led to wars and had never ended in success. The reason for this is easy to understand: this type of system would only satisfy the potential hegemon. We could say that a kind of hegemony was exercised by the United States after 1945. Then came the balance of powers model – but changing coalitions rendered this unstable, ultimately ending in war. The leadership model, where the major powers shared leadership, was hard to sustain over the long term and was particularly unfair to small nations. The confederate model, enabling nations to retain a right of veto with regard to joint decisions, appeared too weak to address any issues other than technical ones. And finally the federal model, characterized by the delegation of sovereignty to joint institutions and the advent of supranational law, was difficult to reconcile with the resilience of national sovereignty.

The experience of the mid-to-late 1940s had proved the impossibility of launching any overall federal initiative across Western Europe. We need only think of the discussions that took place around the creation of the Council of Europe. At the time, Germany was still a source of great mistrust for its neighbors. The disastrous precedent of the Versailles Peace Conference in 1919 resulted from that same mistrust of the great power of Central Europe.

2. Historic Significance of the Declaration of May 9, 1950

Acting in his personal capacity, the Frenchman Jean Monnet, assisted by a number of colleagues and taking just 5 weeks, devised a plan of historical importance in the spring of 1950. His project gained the political support of the French Minister of Foreign Affairs, Robert Schuman, and then the French government. He obtained the agreement of the young Federal Republic of Germany and the allies of France. The Declaration was made public on May 9, 1950.

Here are some selected excerpts from the Declaration:

Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a *de facto* solidarity. The coming together of the nations of Europe requires the elimination of the age-old opposition of France and Germany [...]

The French Government proposes that Franco-German production of coal and steel as a whole be placed under a common High Authority, within the framework of an organization open to the participation of the other countries of Europe [...]

By pooling basic production and by instituting a new High Authority, whose decisions will bind France, Germany and other member countries, this proposal will lead to the realization of the first concrete foundation of a European Federation indispensable to the preservation of peace.

The Monnet-Schuman plan retained the federal organization model, but based on a progressive approach. It involved starting the process of integration via two key sectors of the economy at the time – coal and steel – which were at the heart of the countries' war effort. The European Federation stood for the vision, whereas the path taken involved a progressive and realistic approach that would create a new dynamic between nations. The law, the creation of common institutions, and a partial sharing of national sovereignty were important here. The plan was unique and the implementation of the Declaration led to the birth of the European Coal and Steel Community (ECSC) in 1952.

3. How the Building of Europe Unfolded

Launched in the autumn of 1950 to combat the persistent problem of the rearmament of Germany in a Cold War that had become a major threat, the plan for a European Defense Community (EDC) was crushed by a vote of the French National Assembly in 1954. This vote was evidence of the high level of sensitivity of national sovereignty. Safety and defense issues would therefore come under national and transatlantic rather than European jurisdiction.

The revival following the failure of the EDC led to the two Treaties of Rome, signed in 1957, prolonging a sectoral Europe with the Euratom Treaty and the plan to create a European Economic Community with a customs union; free internal movement of goods, services, people, and capital; and a common trade, competition, and agricultural policy.

Over the decades, development in Europe has been shaped by a series of crises and recoveries. With the Treaties of Rome, there was a noticeable weakening of the method of integration, entailing a distancing from federalism and accommodating the resilience of national sovereignty. There were various geographical expansions, bringing the number of Member States from six in the beginning to today's 28, 19 of which are in the Euro zone.

Integration deepened with the change from Common Market to single market; the development of common policies; the creation of the Euro and an area of freedom, security and justice, and the development of common economic governance. The communities evolved into the European Union (EU), which was born in 1993, demonstrating that there is an increasingly powerful political dimension to the new facets of the European project.

Nor should we ignore the existence of European organizations other than the EU – the Council of Europe and the Organization for Security and Co-operation in Europe (OSCE) in particular. These complement the institutional architecture of Europe and are important, particularly because they form a link with Russia.

4. Respect for Member States

The Community method involves the Member States delegating part of their sovereignty to common institutions: the Council, European Parliament, Commission, and Court of Justice. The management of monetary policy has been federalized across 19 of the 28 Union Member States, and the European Central Bank is in charge of policy. Beyond the Community method, intergovernmental practice prevails within the EU in sensitive areas of foreign and security policy. Taxation and social policy remain governed by the unanimity rule.

European treaties may only be amended if there is unanimity between Member States. There is a political culture of entente in the sense that the exercise of power is widely consensual – it is not the norm for Member States to vote at the Council and even less so at the European Council, and that there is a sort of “grand coalition” at the European Parliament and the European Commission. Legislative processes do not move quickly. Consensus is sought through long consultation procedures, and the work of institutions takes time. Differentiated integration has also been observed over the last 20 years or so. A State that wishes to move forward at a slower rate than the others, or that is not in favor of a new development, can negotiate a special status from within the Union.

5. Freedoms for the Citizens of Europe

The cornerstone of the free movement of people was laid in the treaties of the 1950s relating to employed and self-employed workers. In 1990, this was extended to citizens who are not economic agents (young, retired persons, and economically inactive people). The first step in the abolition of internal borders was taken with the Single Market program, coming to fruition at the end of 1992. This was followed by the creation of the Schengen Area. European citizenship was established by the Maastricht

Treaty in 1993. The Charter of Fundamental Rights became part of the Union's legal framework in 2009. It promotes rights relating to Dignity, Freedoms, Equality, Solidarity, Citizenship, and Justice.

6. Education, Research, and Innovation

Subsidiarity prevails, in the sense that the EU only works alongside States if it can bring added value. In such matters its skills are only employed where they can be shared or provided as a support for Member States. EU involvement in the fields of education, research, and innovation can contribute to the strengthening of a common identity as well as to the competitiveness and well-being of Europeans.

Horizon 2020 is the eighth EU multiyear framework program in research and innovation, covering the period 2014–20. The first was launched in 1984. The EU will be investing around 80 billion Euros during the period 2014–20. The fundamental areas of the program are scientific excellence, the prime importance of industry, and social challenges. Established in 2007, the European Research Council finances exploratory research. Social issues, such as health, the environment, transport, and security are to be the subject of interdisciplinary research work. Following a vote on February 9, 2014, Switzerland only had a partial and temporary involvement in the Horizon 2020 program. It has regained full association in 2017.

Erasmus+ is the EU education program. It is a mobility program dating back to 1987 and is very important for generations of students, 3 million of them having benefited from it since its inception. The program has around 15 billion Euros in funding for the period 2014–20. Three key initiatives have been established: mobility for learning, cooperation and partnership, and policy reform. The Swiss-European Mobility Programme (SEMP) is the Swiss program, which, due to the consequences of the vote of February 9, 2014, replaces the country's

direct involvement in Erasmus+, making it possible to finance exchanges through agreements with partner institutions.

The HEP Vaud PEERS program is a mobility program of a particular kind. It enhances European and international mobility in an easily implementable and cheap way. HEP Vaud created it specifically to meet its requirements as a teacher training institution aiming for international reach and academic status. PEERS projects allow teachers to bind training and research, to manage international scientific projects, and to publish professional literature. As for the students, they can develop their intercultural competences, use the new information and communication technologies, as well as enhance their skills through a deeper thinking and research spirit.

7. Major Challenges

The PEERS program has a direct influence on involved teachers and students. But the influence of the program is much wider as it creates European and international collaboration networks, brings contributions to research and the creation of knowledge and, in the end, has transformative effects through the impact on pupils. As we know, these pupils will be the citizens of tomorrow. The more citizens can understand complexity and evolve in a world characterized by rapid transformations on a global scope, the more they will have a chance to pass sound judgment on the major challenges linked to the building of Europe.

We identify these challenges as follows:

- The issue of identity. The redevelopment of a certain national identity has been observed across the continent. But European identity was never meant to replace national identities. Could a European identity develop over the long term?

- Sovereignty. To an increasing degree, the choice is not about the exercise of sovereignty at national or European level but about the possibility to exercise sovereignty through politics. How do we make the issue available and understandable to citizens?
- Economic success. Even if economic studies reveal the economic benefits of long-term integration, some economies emerged totally run down from the crisis that started in 2008. Unemployment is Europe's big problem, especially amongst young people. How do we ensure that they are not a lost generation?
- Solidarity. There is increased solidarity at European level, but is this enough? Where do we mark the boundary between Member State responsibility and overall solidarity?
- Banish war from the European mainland and meet global challenges. The EU has banished war between Member States but, over time, there is a tendency to forget the fundamental achievement that has been the building of Europe. War and the Hobbesian view of the world continue to stalk the borders of the EU. Will Europeans be able to stand up to major global challenges? Will they keep control of their destiny in a world where they are becoming less and less important, and even marginal?
- Explain the building of Europe: a wonderful plan for civilization that changed the face of Europe. Like every human plan, implementing it is naturally an imperfect enterprise, and an even greater degree of transnational democracy is required. It is quite normal for it to be subject to criticism. Citizens need to make it their own in order to improve it. To achieve this, we need to make them aware of that fact.

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Chapter 3: Preparing Critically and Globally Conscious Teachers

Abstract

This chapter explores the preparation of globally conscious teachers. Concepts of training and growth through education encompassing competencies and skills are surveyed, as is critical thinking, and autonomous learning. Implicit throughout is applied work being done by PEERS teams worldwide, linked to the University of Teacher Education, State of Vaud (HEP Vaud) in Lausanne. For global consciousness, mindfulness is crucial. Individuals must be self and locally thoughtful – linking skills, concepts, peoples, places and cultures. Teacher education takes place within permeable historical and geographical parameters, but especially political economic processes linked to top-down and bottom-up interfaces. Professional responsibility is paramount to developing awareness of processes and structures, where future teachers become critical citizens and actors. Globalization and sustainability education are highlighted, while looking at examples from a teacher education institution in Ireland.

1. The Challenge: work with what you have, and try to improve it – but be critically aware of contexts

Preparing critically mindful educators is challenging with accelerated revolutions in travel, communications and media. Nonetheless, basic education canons hold similarities worldwide, albeit if different emphasis is placed, as I have witnessed by living and working in educational

contexts in Europe, North America, MENA (Middle East and North Africa) and Africa (O'Reilly, 2015).

Cultural constructs concerning education have supported societies with survival and coping skills from historical and anthropological perspectives. This must be seen in contexts of location – interconnections with groups – local to regional scales and beyond; literally and metaphorically going past horizons as did Copernicus, Galileo, Columbus and Einstein. For people involved in teacher education internationally, the lexicon, discourse and canons are similar going beyond basic functional language and concepts (Aldrich, 2008; Fleer and Ridgway, 2014; Guiseppi, 2015).

1.1 Scoping education landscapes

Educational cornerstones: skills based on techniques and abilities – balanced with competencies built on knowledge involves comprehension with facts, information, descriptions gained through experience, perception, discovering or learning. Knowledge can be theoretical or practical, implicit or explicit, formal or systematic. Historically Europe relied on information ranges from Greco- Roman and Judaeo-Christian traditions, and input from Islamic civilization, ranging from Plato and Socrates to Renaissance and Enlightenment thinkers, Ibn Khaldun to Wittgenstein, and post-modernists (Kontopodis & al., 2011; Quillen, 2015; Wulf, 2012). Knowledge acquisition involves cognitive processes of perception, communication and reasoning related to capacity of acknowledgement. Pursuit of knowledge is premised on quests for truth mediated through physical and human sciences, and respective methodologies; in the human condition societies have tried to give their lives a meaning mediated through arts, humanities, religions and ideologies, and ethics (Baggini and Fosl, 2007).

This involves systematizing, defining, recommending concepts and models of right and wrong, good and evil, virtue and vice, just and unjust, or criminal, and values; how should people live. Salient branches of ethics include: meta-ethics – theoretical meaning and how truth values

can be determined or not; normative ethics dealing with practical means for determining moral courses of action; and applied ethics – what an individual is obliged or permitted to do. In some traditions it is believed that basic ethics are common to all humankind as in universal declarations ranging from Rights of Man to Global Citizenship, preceded historically by universalizing religious-philosophical or ideological systems such as Christianity and Islam. Other philosophers interpret ethics as being individually and culturally relative. Without some form of ethical agreement within and between societies, violence ensues (Cavalier, 2015).

Knowledge of self, society, country and worldview is passed from generation to generation. With increasing knowledge linked to globalization, educational systems in democracies are promoting active learning to produce effective citizens. Hence the challenges: teaching and learning knowledge and skills, helping people to learn how to do things and think why they are learning and doing, and how they will apply skills and competencies to create a sustainable world. Being cognoscente of (dis)empowerment, and philosophical perspectives including Paulo Freire – of self, others and society may provide stimuli for societies to strive for democratic structures and cultures facilitating change that is long-lasting ecologically, economically and socio-culturally. Empowerment through education leads to positive development (Foucault, 2015; Lyons, 2015; Freire Institute, 2017).

Regarding discourse parameters of ‘formal education’ – kindergarten to University and curricula, there is always danger that formal structure, action and power takes precedence over active teaching and learning targeting empowerment of individuals – creating ‘rounded’ teachers with critical judgment of self and others. Formal education targets the science and art of teaching – pedagogy, and must avoid stultifying ‘educification’ whereby even the simplest, is rendered more complex and ‘school-ish’ so dulling students innate discovery learning, curiosity and fantasy. Non-formal education may be acquired by structured home-education, homework clubs, summer school, community programs and so forth.

Whether educated within formal or informal systems, or combination thereof, informal education is paramount in human development. This

includes learning from family and community ranging from self-hygiene to nutrition, handling ones budget – ‘living within one’s means’, digital dexterity, and attitudes enhancing the dignity of work. Acquired are caring for others and environment, empathy, balanced awareness of endowment and entitlement for self and others, rights and duties, and proactive approaches to self-education i.e. ‘if you don’t know something, then look it up, ask, go there and observe, think more about it’. Autonomous learning helps counteract dangers of solipsism – believing that nothing exists or can be known to exist outside one’s own mind; and anomie – breakdown of social bonds between individuals and community, where society is perceived to provide little ethical guidance.

With solipsism, individuals may form small groups, attempting to legitimate extreme actions with spurious reference to political or religious ideologies and traditions, using literalist interpretations of narratives, sacred books and mythologies as with negative fundamentalisms concerning female education. Attempted Hollywood-ization and Californication of mass culture, promoting unbridled individualism (often synonyms for egoism, selfishness, and eccentricity) is fuelled by marketing. This is impacted on by delusional X-factors and so called reality media whereby individuals including pupils, teachers and society now have to be ‘famous’ in a populist environment or else labelled ‘losers’. Kardashian spectators throughout globalizing cultures can verify this. In the bipolar – famous versus loser worldview, if you are not a millionaire then you are poor; if you do not physically fit a ‘manufactured blueprint’ then you are ugly, obese or stupid. If you do not get X number of hits on Facebook then you are boring, as illustrated with cyber-bullying. Normalization of the abnormal poses threats which teachers must be cognizant of (Arendt, 2015).

Educators have to nurture critical thinking so as to avoid totalitarian, fundamentalist and populist standpoints which encourage nihilism and dystopias. This is not to say liberal democracies have produced perfect utopias as witnessed with 21st century emerging global cultural paradoxes promoted by neoliberal capitalism and reactions of electorates to this in mature democracies as in the Swiss Immigration Referendum (2014), UK Brexit leaving the EU (2015), and US presidential election of Donald Trump (2015).

In preparing teachers, tools for criticism have to enhance student abilities: skilful judgement as to truth, merit, evidence, analysis, evaluations, actions and outcomes, and personal responsibility. Student teachers must be conscious of self – his/her own existence, self-knowledge, sensations, thoughts, surroundings, identity, physical and social environment and sources of their own educational / cultural conditioning. This involves awareness and sensitivity to others, and one's own strengths and weaknesses, active mental faculties, knowing what one is doing, and what is deliberate or intentional as opposed to instinctive. Whatever structures, actions and cultures surrounding the teacher's work environment, the professional has to teach, instruct and educate (Stanford Encyclopaedia of Philosophy, 2015).

Critical thinking involves making reasoned judgments based on logic, seeking evidence to support argument or conclusion. Students who use critical thinking ask: how, why, when, what, where, who type-questions. Core skills involve: curiosity or desire to learn more, seeking evidence and new ideas; scepticism – having a positive questioning attitude about new information, not accepting everything at face value; humility or ability to admit or accept that your opinions are wrong when faced with new evidence (Britannica Encyclopaedia Philosophy, 2015).

Mindfulness is imperative: "I know that I know nothing" (Socrates), "real world knowledge is to know the extent of one's own ignorance" (Confucius), "ignorance more frequently begets confidence than does knowledge" (Darwin), "the fool thinks he is wise, but the wise man knows himself to be a fool" (Shakespeare). George Bernard Shaw reminds us "beware of false knowledge; it is more dangerous than ignorance", and "one of the painful things [...] is that those who feel certainty are stupid, and those with any imagination and understanding are filled with doubt and indecision (Bertrand Russell). Teachers are reminded daily that: "it takes considerable knowledge just to realize the extent of your own ignorance" and that of the people being taught (Thomas Sowell); "we cannot solve our problems with the same thinking we used when we created them," so "learn from yesterday, live for today, hope for tomorrow" [...] "the important thing is not to stop questioning" (Einstein). The teacher is has to empower children, and not to stifle future

potential Socrates, Confucius, Columbus, Ibn Battuta, Mozart, Einstein, Stephen Hawkins, Bill Gates, and productive, reflective citizens, workers, teachers and parents (Education quotes, 2015).

Teachers can't work miracles, be experts in all disciplines – but they have to work with possibilities and limits of pupil's potential – ranging from special educational needs to intellectually gifted students. Teachers are cornerstone in education processes; parents and society are equally key actors – with responsibilities.

Increasingly teachers are 'delegated' by governmental and business sectors to 'handle' all social problems ranging from children from dysfunctional families, to poverty, obesity and malnutrition impeding child development, promoted by junk food culture based on consumer ignorance and marketing, lacking ethics regarding environment, people and culture. Concepts of Fair Trade and sustainability must not become simply aphorisms in class. Few people would challenge contentions that consumerism has become mantra.

Students and parents have an increasing sense of entitlement regarding perceived 'education product' with commodification, and ever-more audits, assessments, tests and media coverage, fuelled by 'hits' and 'tweets' regarding schools and teachers. If not critically evaluated, then teachers fall victim also, into the cyber-bullying category. A mismatch between student's ability and expectations, sometimes fuelled by parents, and society sectors, can lead to student lack of engagement, dropping out, and frustration in transitions from school to further education, training and employment.

Dunning and Kruger (2015) posit that there is an effect of cognitive bias where unskilled individuals suffer from illusory superiority, over judging their own ability to be much higher than is accurate. This metacognitive inability to recognize ineptitude can be challenging for teachers, especially when individuals refuse recommendations in how to improve. The Dunning-Kruger effect has its converse where highly skilled individuals tend to underestimate their competencies, mistakenly assuming that tasks that are easy for them are easy for others. They conclude that the mis-calibration of the incompetent stems from an error about the self, whereas the mis-calibration of the highly competent stems from an error about others (Dunning and Kruger, 2015).

With accelerated democratization of education access since the 1970s in Europe and North America, institutions like teachers have had to face demands of students, parents, governments and international organizations such as EU, Council of Europe and UNESCO, but also commodification of ‘education products’ for real and potential ‘clients’ nurtured by neoliberal ideals. At its most basic, education becoming a set of skills to be packaged and sold in open markets with ‘skills box and yellow packs’. Schools and universities like businesses have to be self-financing, profit making in order to continue functioning in this neoliberal worldview. This would be enhanced by private sponsorship, which by its nature sets agenda for curricula, programs and delivery of ‘product’. Individual consumers rather than public funds would have to pay for their education. Of course this neoliberal ideal has been adapted to varying degrees in many countries (Ross and Gibson, 2006).

Whether we explicitly or implicitly accept or not neoliberal models of production and consumption of education, we face challenges of regulation versus deregulation, and the so called controllers, as came to the fore during the economic crash of 2007. Many education institutions are put-upon with overemphasis on pleasing the ‘consumer’. Some observers argue that this has led to grade inflation and ‘dumbing down’ content to maintain clients and gain new markets; others have been accused of ‘the great training robbery’.

PEERS partner institutions, students and teachers gain critical awareness of their own socio-cultural and political-economic environments and that of their partners and wider educational community as is implicit in PEERS case study work.

1.2 Globalization and globally conscious teachers

PEERS partners communicate, travel and work together – but what does this mean for student teachers. Globalization refers to worldwide interconnectedness between places and peoples, physically and virtually driven by economic flows, innovation and diffusion of ideas and cultures often through the medium of English. This is exemplified by flows of pop

music on a myriad of devices, and big events such as Grammy Awards. Pop music's creation location, production and diffusion worldwide offer narratives ranging from Michael Jackson to Beyoncé. TV series like *Friends* and *Criminal Minds*, or films such as *Pirates of the Caribbean*, and *Harry Potter* and *Fifty Shades of Grey* in book, kindle and movie forms promoted with Hollywood Oscars, Emmy and Golden Globe Awards are everywhere. Fashions, tastes, language, attitudes become 'normalized' whether ethical or not. News goes from national and BBC World and CNN worldviews to that of France 24, Euronews and Al Jazeera, and Facebook-spheres. Whether with music or news, messages 'pushing frontiers outwards' on ethics, individualism, human rights and environment are sent. Flows of sports images – scores, players' public and private lives, heroes and villains, scandals and advertising are 'in your face'. Students are now embedded in this whether they are cognizant or not (Britannica Encyclopaedia Globalization, 2015).

Top-down meta-structures such as the World Bank, IMF (International Monetary Fund), Davos World Economic Forum (WEF), ECB (European Central Bank) interface with the EU, NAFTA (North American Free Trade Agreement) and ASEAN (Association of Southeast Asian Nations), while governments facilitate collaboration with Transnational Companies and banking sectors. Theoretically they meet the demands of citizens (Agnew, 2008). Commodification – putting price tags on everything including education is part of this. Homogenisation of consumer markets to feed, clothe, beautify, transport and educate is 'communicated' by McDonald, Abercrombie, L'Oreal, Toyota and Google claiming that: 'You're worth it'. This may foster an overdeveloped sense of entitlement for consumers and students alike.

But globalization is not truly global in equitable terms, within and between societies as with urban and rural Greece, between Greece and Germany, and the EU and countries in the Global South. A major strength of PEERS is collaboration on all continents, offering student teachers experience, knowledge and empathy as demonstrated in case studies (Murphy and Descoedres, 2016). Interdependencies exist, at all geo-social scales – economic cores to peripheries. Students become aware that top-down governmental organization has to negotiate with

bottom-up groups, NGOs and electorates, or else risk socio-political and environmental implosion as witnessed in Soviet states (1991), or conflict as seen in several African states including PEERS partner countries, and Arab Spring revolutions starting in 2010 in Tunisia, and impacting on Syria producing refugee and migrant crises in Europe.

1.3 EU input into education processes

The Council of Europe (47 states) was founded to support dialogue, peace, human rights and democracy in Europe with education a key pillar (Council of Europe, 2015). Enhancing this, EU works with EEA states Iceland, Norway and Switzerland, and EU candidate countries including Turkey, with EU objectives to: promote cooperation and stability; economic growth through open markets; develop poorer European regions; act within sustainable frameworks; and develop a security and foreign policy to be a force for stability within Europe and the world (EUROPA, Enlargement, 2017).

EU policies foster skills and competencies, curricula and programs. Policies, structures and actors, including teachers, have to be further developed by consensus between EU members in order to assure objectives. In 1987, the EU implemented its first education program – COMETT, to stimulate contacts and exchanges between universities and industries, followed by ERASMUS promoting inter-university cooperation, mobility, and youth programs in 1989. Erasmus+ (2014–20) covers education and training aiming at boosting skills, employability and modernization of education, training and youth systems with a budget of 14.7 million euros, 40 % higher than previous levels. Four million people will receive support to study, train, work or volunteer abroad, including 2 million higher education students, 650,000 vocational training students and apprentices, and 500,000 going on exchanges and volunteering abroad (EUROPA, 2015).

The European Credit Transfer and Accumulation System (ECTS) is a standard for comparing student attainment across the EU and collaborating countries. The Bologna Process promotes higher education reform targeted establishing a European Higher Education Area (EHEA)

reinforcing free trade and free movement of workers in Europe (Erasmus, 2015). Educational systems form cornerstones of the European Project within contexts of globalization. Preparing critically globally conscious teachers is not a choice but an imperative. International scales must reach to the local with 'glocalization' whereby pupils in schools, like student teachers are at home in their habitus and not lost in 'place-less' homogenised environments.

2. Case studies from Ireland

To illustrate what is happening in the largest teacher education institution in Ireland, Dublin City University – Saint Patrick's Campus, data from the International Office Report 2014–15 of St. Patrick's is used.

2.1 International mobility

Bachelor of Education (B.Ed.) students studying to be primary teachers numbered 1,264, with 179 post-graduates. Some 600 Bachelor of the Arts (B.A.) students registered in the Humanities Faculty; a majority go on to post-graduate programs becoming primary or secondary (middle and high school) teachers. DCU St. Patrick's holds the Erasmus Charter for Higher Education (2014–20) with 45 Bilateral Agreements with Partner HEIs (Higher Education Institutions): 40 in Europe, 4 USA and 1 Japan. St. Patrick's encourages internationalization at home and abroad (Nilsson, 1999).

Concerning mobility, there were 23 outgoing B.Ed. students for full academic year, and 38 for one semester only. Seven outgoing B.A. students went to Europe for full academic year and 3 to Europe for one semester. Three student teachers went to Luxembourg for training placement (TP). There were 22 (16 EU, 5 USA, 1 Japan) incoming students in Semester 1 and 47 (43 EU, 3 USA, 1 Japan) in Semester

2, and 6 incoming students from non-partner US HEIs. Collaboration with two NGO programs placed 10 volunteer students in Ethiopian and Ugandan schools. Four special modules were offered for international students and four fieldwork trips, while the GAA (national Gaelic Athletic Association) sponsored cultural events and tickets for matches.

There were 16 incoming international staff visits and three shared international modules including the Swiss-Irish PEERS Project. Ten European students did Teaching Placement in primary and secondary schools in Dublin. Staff mobility targeted an inter-university Master’s program at Angers and participation in the Comenius Association – 30 teacher education HEIs in 18 EU states (Comenius Association 2017). The NETT Meeting – Network for Education and Teacher Training in Europe was attended in Hungary (June 2015). Outward staff Mobility included: the University of Lorraine, Metz and Nancy Campuses; European School Luxembourg (May 2015); Symposium – European Group for Teacher Education HEIs in UC Leuven-Limburg, Belgium (June 2015), and HEP (Lausanne) PEERS Workshops (July 2015).

2.2 Geography and education

St. Patrick’s Geography Department prepares globally conscious teachers organizing modules around thematic years. Sustainable Development in first year is followed by Citizenship and Human Rights in second year, preceding specialisms – the professional geographer in third and fourth year (O’Reilly, 2014; De Miguel González and Donert, 2014).

Table 1. DCU-SPC Geography Department Student Numbers 2014–15.

| <i>Year</i> | <i>B.Ed.</i> | <i>B.A.</i> |
|-------------|--------------|-------------|
| 1 | 140 | 115 |
| 2 | 25 | 69 |
| 3 | 38 | 69 |
| 4 | 38 (2015–16) | |

Source : DCU-SPC Registrar’s Office.

Students discover relationships between sustainability theory and practice as in fieldwork (Harper, 2004; Herrick, 2010; McManus and O'Reilly, 2016):

Student 1 re: Newgrange (megalithic necropolis – UNESCO World Heritage site):

Evaluating sustainability from an environmental perspective the positioning and design of the visitor centre indicates the measures taken to make it blend in with the landscape. Tourist numbers allowed into Newgrange are limited to preserve the site for future generations... Newgrange must be economically viable to fit into the sustainability model... From the social perspective there are notable efforts made to preserve the site for future generations while also balancing the needs of the present...

Student 2 re: Luas (light rail) Park and Ride facility, M50:

This park and ride facility is economically viable. The Luas is a regular service and fast compared to buses. It makes perfect economic sense to use this facility as it is cheaper than running your car journey in and out of the city every day. This car park is environmentally viable as it reduces the carbon footprint of the city centre, as there are fewer cars in this area. It is socially viable, as it reduces commuter stress, as they do not have to deal with the traffic; it reduces congestion in the city centre for those who do have to make the journey in...

Joint courses: (i) Dutch (HAN, University of Applied Sciences, Faculty of Education, Nijmegen) and Irish (DCU-SPD) students collaborated virtually and face to face in the organization and delivery of a fieldwork module. (ii) Identity: inter-culturalism, globalization, and citizenship themes were worked by Irish (DCU-SPD) and American (University of Northern Colorado, College of Humanities and Social Sciences, Greeley Campus) students. These examples involved online interaction – in the first case, students met following a preparatory period of virtual collaboration; in the second case, interaction was online only (Hurley & al., 1999). These experiences were positively received, highlighting potential for new generations of teachers to use ICT in order to share empathy across boundaries (O'Reilly and McManus, 2011, 2013; Solem & al., 2010; Ioannidou and Konstantikaki, 2008).

2.3 The centrality of empathy in PEERS education

Collaboration involves pedagogy and empathetic education and discovery (or enquiry-based) learning. More than one type of intelligence exists, with social and emotional intelligence progressively valued in workplaces (Goleman, 1996; Ioannidou and Konstantikaki, 2008). Empathetic intelligence is based on a theory of relatedness which is dynamic regarding thinking and feeling; ways in which each contributes to making of meaning. It is built on person-centered situations and professional contexts. Salient skills, abilities and attitudes underpin effectiveness in contexts with enthusiasm, expertise, capacity to engage, and empathy itself. Empathy is a function of mind, brain and feeling, and its relatedness to narrative and imagination. Social usefulness of empathy and organization is crucial in developing cultures of learning essential for students and lecturers, on practice and professional relationships (Arnold, 2005). This perspective must be forefront in the digital age. Given the (emotionally) distancing effect of technology, students must develop empathetic intelligence so as to engage effectively as illustrated by PEERS collaborations where empathic learning is reinforced (Marron and Descoedres, 2015).

All Irish students collaborating with HEP in PEERS contexts confirmed that they found their experiences highly positive. Emphasis in PEERS is for students to become involved in ‘using their skills to undertake enquiry’, ‘working together to develop ... craft and enhance personal competence’ (Naish & al., 2002, p. 69). In this constructivist approach, students were not provided with exact answers, but rather skills and materials to find answers themselves. Learners were encouraged to draw on their experience and prior knowledge, calling on that of peers, in group learning scenarios. Recognizing debates concerning values of discovery learning, particularly the work of Mayer (2004), the approach taken moved beyond unassisted discovery learning to utilize what Marzano (2011) has described as ‘enhanced discovery learning’. Key elements in success of projects were the degree to which students were prepared for the learning tasks and assistance where necessary, but with a ‘light-touch approach’.

3. Concluding remarks

Exploring challenges of how to prepare critically internationally mindful globally conscious educators, the kernel is how to evaluate, 'work with what you have' and 'try to improve it'. Targeting equilibriums between competencies and skills is imperative, 'learning by doing' is crucial. That is not to imply simplistic perspectives whereby the trainer makes out the 'to do' list and tells the trainee: 'go do it'. Balancing blended teaching methodologies with awareness of student multiple intelligences and empathy is vital in developing attitudes and mind-set. This implies intellectual curiosity and enjoyment, a desire to evaluate and find answers, and skills of how and where to find these; creation of tangible and intangible responses and solutions at varying levels of abstraction and product. Concepts regarding education (formal, non-formal and informal), knowledge, cognitive processes, ethics, self-awareness, empathy, have been explored.

Regarding multiple intelligences, individual abilities, issues of self and group identities, there is no 'one size fits all' toolbox for nurturing critical thinking. Nonetheless, creation of educational contexts, environments, ethos, dialogue, lexicons and appropriate methodologies do much to support positive attitudes to critical thinking. Key competencies and skills are the product of lived individual, social and civilizational and historical experiences with many shared canons. While professional teachers form a cornerstone in educational processes, parents and society are equally responsible.

While each student teacher has experienced a unique geographical life-path and time slice i.e. places and cultures, they have to be aware of self and others, and processes that have helped shape them, in order to connect with life-paths and time slice experiences of their own students. Besides pedagogical and psycho-educational training, teachers must be aware of bigger pictures: socio-cultural and political-economic that affect them and their work from top-down government curricula and programs influenced by political, economic or religious ideologies and trends, to interlinkages with bottom-up group actors in democratic processes, and

weakness or lack of such in some contexts. In understanding processes, student teachers are being educated into being active citizens with responsibility in school environments and wider scales as illustrated in the PEERS work.

Concepts of globalization impacting at local to vast scales, especially economic interfaces of top-down institutions such as UNESCO, Council of Europe and EU influence processes as with the Erasmus program. Case study material from an Irish University helps demonstrate drives for global consciousness in teacher education, firstly with material from the 2014–15 Report of the International Affairs Office, DCU St. Patrick's. This is enhanced with data from the Geography Department's commitment to Sustainable Development and Citizenship enhancing skills and competencies with shared international work including PEERS.

